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ABSTRACT

This volume is one of three in a self-paced computer literacy course that gives allied health students a firm base of knowledge concerning computer usage in the hospital environment. It also develops skill in several applications software packages. Volume II contains materials for three one-hour courses on word processing applications, spreadsheet applications, and database management applications. Each course curriculum contains four parts. A student's course syllabus provides this information: catalog description, prerequisites, required text, instructional process, and class schedule. A student guide consists of a sheet for each of the seven units in each course. These sheets present title, contents, objectives, rationale, learning activities, vocabulary, and evaluation. A student lab guide provides this information for the five assignments in each course: objectives, required equipment and materials, learning activities, steps, and evaluation. The instructor's course syllabus outlines prerequisites, required text, references, required equipment and materials, instructional process, and student evaluation. Competency statements and a course outline are included. The instructor's guide presents this information for each unit: contents, unit objectives, required equipment and materials, procedures, learning activities, and evaluation. (YLB)

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ED285026

Curriculum Improvement Project
Region II

MICROCOMPUTER APPLICATIONS FOR HEALTH CARE PROFESSIONALS

Developed by Lucy Bruce

VOLUME II

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
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PVEP 87-1030-B-2
Project Director: Cheryl L. Willis, Ph.D.

June 30, 1987

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FOREWORD

Galveston College is not unlike other small community colleges trying to keep its curriculum in sight of rapidly changing technologies. We are unique, however, in that we were given an opportunity by the Coordinating Board of the State of Texas through a grant of Carl D. Perkins Act vocational funds to undertake a major curriculum improvement project which had as its focus curricula for accounting, the allied health professions, microcomputer applications, and office occupations. The course curriculum that you have before you is one of nine courses or modules that were developed from this project. What cannot be immediately evident to you, though, is the sense of cooperation that governed the various phases of the project. The resulting benefits to the College, its faculty, and its staff as a result of this project, were many, including increased knowledge of the curriculum improvement process, increased knowledge of the ramifications of networking microcomputers, increased awareness of the vocational programs of other community colleges, and increased awareness of the need for staff development opportunities. The enduring impact of this project will come in the months ahead as our instructors, and hopefully other instructors across Region II and the state, implement the curricula. We at Galveston College are proud of the results of the Curriculum Improvement Project and hope that your college will share the benefits.

Dr. Marc A. Nigliazzo
Vice President and Dean of Instruction
June 30, 1987

REGION II

CURRICULUM IMPROVEMENT PROJECT

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Copies of the above course curriculum are available for a nominal cost from: Division of Business and Technology
Galveston College
4015 Avenue Q
Galveston, TX 77550

A C K N O W L E D G M E N T S

This course curriculum represents but one of the many final products of the Curriculum Improvement Project. I want to take this opportunity to thank those individuals who worked so hard together to bring this project to a successful conclusion. To the administration and the Board of Regents of Galveston College I wish to express my appreciation for their willingness to accept the challenges and risks associated with a project of this magnitude and for having the forethought to see its benefits for the college and the community. To the support staff in the Business Office and the Office of Planning and Development, thank you for your patience and helpfulness in providing the project staff with everything we needed--yesterday. To Karla Back, Assistant Dean of the Division of Business and Technology, for her constant encouragement of the vision of the project, I will be forever grateful. My most heartfelt thanks, though, go to the project team--all of the curriculum writers who gave 110 percent effort whenever it was needed; the various editors and word processors who helped us along the way; Paul Fama, Research Associate, who provided constancy and consistency; and Mary James, project secretary, who kept us all sane.

Galveston, Texas
June 30, 1987

Cheryl L. Willis, Ph.D.
Project Director

PREFACE

The work of the health care professional will be changed by the integration of the microcomputer into the functioning of the medical field. Microcomputer Applications for Health Care Professionals is a self-paced computer literacy course which gives the allied health student a firm base of knowledge concerning computer usage in the hospital environment, as well as skill in several applications software packages. Because it may be impossible to fit an additional three-hour course into your two-year curriculum, this curriculum was also divided into three one-hour courses--word processing applications, spreadsheet applications, and database applications. "Unbundling" this course will also make it more attractive as a continuing education course. Volume I contains materials for the three-hour course, and Volume II contains materials for each of the 3 one-hour courses. Each course curriculum contains four parts--student's course syllabus, student's reading and laboratory guides for each unit, and an instructor's course manual. The materials presented in this course curriculum are only a suggested format for a course of this nature and, as typical with community college curriculum, will undergo revision in the future. The author and Galveston College welcome your comments regarding your experience with these materials.

VOLUME II

ONE-HOUR COURSES

WORD PROCESSING APPLICATIONS

STUDENT COURSE SYLLABUS

Microcomputer Applications for Health Care Professionals

STUDENT'S COURSE SYLLABUS

COURSE TITLE: MICROCOMPUTER APPLICATIONS FOR HEALTH CARE PROFESSIONALS - WORDSTAR

COURSE NUMBER:

Prefix	No.	0 Lecture Hrs.	45 Lab Hrs.	1 Credit Hrs.

CATALOG DESCRIPTION:

An introduction to microcomputer use in health care settings. Topics include computer system information, wordprocessing, and applications for the health care professional.

PREREQUISITE:

None

TEXTS:

Essentials of Data Processing, by Nancy A. Floyd, Times Mirror/Mosby College Publishing, 1987.

Microcomputers in Health Care Management, by William W. Christensen and Eugene I. Stearns, Aspen Publication, 1984.

Understanding and Using WordStar, by Steven C. Ross, West Publishing Company, 1986.

INSTRUCTIONAL PROCESS:

1. This is a self-paced course that will take approximately 45 hours to complete for 1 hour credit.
2. Reading and laboratory assignments can be found in the materials, Student's Guide (Laboratory), attached.
3. A paper describing the use of microcomputers in general, and word processing in particular, in the student's health care discipline will be required.
4. Tests and quizzes will be given.

5. Application program disks, data disks, and tests and quizzes are available from the check-out desk in the Learning Resource Center.

6. All laboratory assignments, tests and quizzes, and the paper must be completed by the last day of the course. Although this is a self-paced course, there is a class schedule attached to the Student's Course Syllabus. The student may use it as a suggested schedule to complete the course if so desired.

7. The student who has knowledge and experience in any of the course content may demonstrate proficiency and receive credit for it by successfully completing tests, quizzes, laboratory assignments, and/or the paper.

OBJECTIVES:

After completion of this course, the student will be able to:

1. Understand basic information concerning computer systems

2. Demonstrate proficiency in wordprocessing

3. Understand applications of wordprocessing in health care

EVALUATION OF STUDENTS:

Examinations: Two unit tests will be given.

Quizzes: Two quizzes will be given periodically. Each quiz will be similar to exam questions.

Paper: One paper will be required.

Laboratory Assignments: These will be found in the Student's Guide (Laboratory).

FINAL GRADE DETERMINATION:

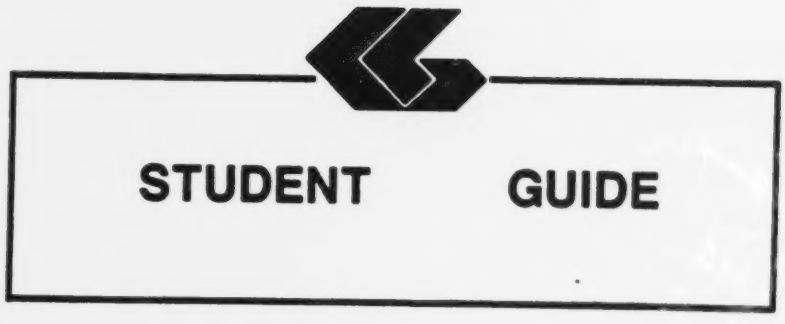
Grades for the semester will be determined based on the accumulated points earned. To determine a tentative grade, divide the total points earned by the total possible points. The grading scale will be strictly 90, 80, 70, 60 percent of the possible points.

Approximately 40% of the total points will be from lab assignments, 20% from tests, 20% from quizzes, and 20% from the paper.

CLASS SCHEDULE:

Week No.	Description	Due	Assignment
	INTRODUCTION/OVERVIEW		Essentials of Data Processing
1	Information on Computer Systems	Quiz 1	Chapters 1, 2, 3, and 4
2	Information on Computer Systems (Cont.)	Test 1	Chapters 1, 2, 3, 4, 6, 8, 9, 10
	WORDPROCESSING: WORDSTAR		Understanding and Using WordStar
3	Getting Started on Your Microcomputer	Lab 1	Appendix A
	Fundamental Operations		Part 1: Page 1
	The WordStar Enviornment		Part 1: Unit 1
	Creating a Document		Part 1: Unit 2
	File Management		Part 1: Unit 3
			Application A1
			Application A2
4	Quick Look At Menus	Lab 2	Part 1: Unit 4
	Menu Editing Commands	Appli. A1	Part 1: Unit 5
	Markers and Block Move, Copy and Delete	Appli. A2	Part 2: Unit 6
			Application A1
			Application A2
			Application B1
			Application B2
5	Find and Replace	Quiz 2	Part 2: Unit 7
	File Operations	Lab 3	Part 2: Unit 8
	Onscreen Formatting	Appli. B1	Part 2: Unit 9
		Appli. B2	Application B1
			Application B2
			Application C1
			Application C2
			Application D1
			Application D2
			Application D3
6	Pagination, Headings and Footings	Lab 4 Appli. C1	Part 2: Unit 10
	Printing Special Effects	Appli. C2	Part 2: Unit 11
			Application D1
			Application D2
			Application D3

Week No.	Description	Due	Assignment
7	Print Command Options Help Menu	Test 2 Lab 5 Appli. D1 Appli. D2 Appli. D3 Paper	Part 2: Unit 12 Part 2: Unit 13 Application D1 Application D2 Application D3
	Applications for Health Care Professionals		Microcomputers in Health Care Management Chapters 3 and 5 Paper assignment


STUDENT GUIDE

Microcomputer Applications for Health Care Professionals

STUDENT'S GUIDE (READINGS)

Unit 1

Unit Title: Information on Computer Systems

Contents of Unit:

1. The components of computer hardware
2. The two basic types of software
3. The ways in which operating systems can be used
4. The different levels of programming languages
5. The historical development of computers
6. The role of computers in business, medicine, allied health and society
7. The factors to be considered in selecting a microcomputer
8. The factors to be considered in selecting applications software
9. The basic concepts of telecommunications
10. The components of the information processing cycle

Unit Objectives: Upon completion of this unit, the student will be able to:

1. Define the term computer
2. Recount the evolution of computers
3. Discuss how computers affect our lives
4. Describe the characteristics of the various input and output devices
5. Explain the differences between sequential and random access and the advantages of each
6. Explain the purpose of secondary storage
7. List several devices that must be accessed sequentially and several that may be accessed randomly
8. Explain how data is stored on disk and on tape
9. Identify the components of the central processing unit
10. Describe what occurs during a machine cycle
11. Explain how main storage differs from secondary storage and the purpose of each
12. Differentiate between multiprogramming and multi-processing
13. Discribe the purpose of an operating system and compares several current ones
14. Explain what software is
15. Discuss custom programming and why it is necessary

16. Describe several popular types of applications software: electronic spreadsheets, word processing programs, and integrated software
17. Explain what is meant by high- and low-level languages
18. Discuss why so many languages exist and describes several of them
19. Explain the purpose of query languages
20. Describe what is meant by natural languages

Rationale: Students must understand and be able to describe basic information and concepts concerning computer systems in general.

Learning Activities: Essentials of Data Processing
Read Chapters 1, 2, 3, and 4

Unit Evaluation: Quiz #1 and Test #1

Terms (vocabulary):

computer	input device	output device
sequential access	random access	secondary storage
data	disk	tape
central processing unit (CPU)	machine cycle	main storage
programming	operating system	software
electronic spreadsheets	custom programming	query languages
high-level language	word processing	integrated software
	word processing programs	low-level language
	natural languages	applications software

Microcomputer Applications for Health Care Professionals

STUDENT'S GUIDE (READINGS)

Unit 2

Unit Title: Information on Computer Systems (Cont.)

Contents of Unit:

1. The microcomputer revolution
2. The database and its evolution
3. The basic concepts of electronic spreadsheets
4. The basic concepts of wordprocessing
5. The basic concepts of database management
6. The use of graphics
7. The use of networking
8. The current issues in telecommunications

Unit Objectives: Upon completion of this unit, the student will be able to:

1. Discuss the history of the microcomputer revolution
2. Describe the unique hardware characteristics of the microcomputer
3. Explain what a "supermicro" is
4. Discuss the various uses of microcomputers
5. Evaluate microcomputer hardware
6. Evaluate software
7. Know how to care for the microcomputer system
8. Define database
9. Discuss why database evolved
10. Describe the purpose of a query language
11. List the main functions of a database management system
12. Name the three most common types of database organization and describes their structure
13. Discuss the problems arising from the collection of large banks of data in a central location and problems with privacy, security, and ethics
14. Explain what a spreadsheet is and how it is used
15. Describe word processing and its advantages over both typing and using a memory typewriter
16. Discuss ways that database is used on a microcomputer
17. Define graphics and describes how they are used in a microcomputer environment
18. Discuss the features, such as windowing, that are used in these packages
19. Describe a telecommunications system and its hardware components
20. Explain what is meant by "handshaking"

21. Identify several types of communication links
22. Define a network
23. Describe several network configurations
24. Discuss the advantages and disadvantages of distributed data processing
25. Differentiate between distributed data processing and a distributed database
26. Discuss the current issues in telecommunications: privacy, security, and integrity
27. Discuss current trends in telecommunications

Rationale: Students must understand and be able to describe basic information and concepts concerning microcomputers, word processing, electronic spreadsheets, database management, and telecommunications.

Learning Activities: Essentials of Data Processing
Read Chapters 1, 2, 3, 4, 6, 8, 9, and 10

Unit Evaluation: Test #1

Terms (vocabulary):

microcomputer	hardware	supermicro
software	microcomputer system	database
query language	centralized data	database management system
data privacy	data security	wordprocessing
data ethics	spreadsheet	handshaking
graphics	windowing	network
telecommunications system	communication links	distributed data processing
telecommunications integrity	data processing	distributed database
telecommunications security	telecommunications privacy	
	telecommunications trends	

Microcomputer Applications for Health Care Professionals

STUDENT'S GUIDE (WORDSTAR)

Unit 3

Unit Title: WordStar

Contents of Unit:

1. Getting Started on Your Microcomputer
2. Fundamental Operations
3. The WordStar Enviornment
4. Creating a Document
5. File Management

Unit Objectives: Upon completion of this unit, the student will be able to:

1. Prepare a disk for use
2. Copy single files
3. Copy all files
4. Copy an entire disk
5. Identify disk(s) to start WordStar
6. Describe how WordStar uses the keyboard
7. Identify the levels of operation of WordStar
8. Load the WordStar program
9. Describe a document file
10. Identify what IBM PC keyboard keys substitute for common cursor movement keys
11. Create a new document
12. Edit a previously created document
13. Save a file to disk
14. Print a file
15. Describe file naming conventions
16. Identify how to use file names to your advantage
17. Describe how WordStar's automatic backup system functions
18. Create backup files on a data disk

Rationale: Students must understand and be able to demonstrate proficiency in executing basic procedures and commands.

Learning Activities: Laboratory 1

Understanding and
Using WordStar

Appendix A

Part 1: Page 1
Part 1: Unit 1
Part 1: Unit 2
Part 1: Unit 3
Application A1
Application A2

Unit Evaluation: Application A1
Application A2
Quiz #2
Test #2

Terms (vocabulary):

disk operating system (DOS)	function keys	main menu
numeric keypad keys	toggle key functions	caps lock key
startup procedures	loading DOS	the DOS prompt
default drive	shutdown procedures	DOS commands
copying files	disk preparation	disk directory
erasing files	copying an entire disk	deleting files
commands	pause display	saving files
logged disk drive	levels of operation	opening menu
entering text	opening a document file	exiting WordStar
exiting to the opening menu	printing	multiple key combinations
backup	file names	print screen function
	extensions	

Microcomputer Applications for Health Care Professionals

STUDENT'S GUIDE (WORDSTAR)

Unit 4

Unit Title: WordStar (Cont.)

Contents of Unit:

1. Quick Look At Menus
2. Menu Editing Commands
3. Markers and Block Move, Copy and Delete

Unit Objectives: Upon completion of this unit, the student will be able to:

1. Describe the five menus subordinate to the Main Menu
2. Move to the left or right side of the line, the top to bottom of the screen, and the beginning or end of the file
3. Center text on a line
4. Underline or boldface text
5. Abandon the version of the file currently being edited
6. Change the help level
7. Differentiate between insert and over-strike modes
8. Scroll the document up or down
9. Delete a word at a time
10. Delete part of a line
11. Delete an entire line
12. Insert a hard return
13. Stop a command
14. Describe markers and block operations
15. Place markers in a document
16. Move the cursor to those markers
17. Mark a block of text
18. Hide and displays the block markers
19. Move a block of text from one place to another
20. Make a copy of a block of text elsewhere in the document
21. Delete a block of text

Rationale: Students must understand and be able to demonstrate proficiency in executing basic procedures and commands.

Learning Activities: Laboratory 2

Understanding and Using WordStar

Part 1: Unit 4
Part 1: Unit 5
Part 2: Unit 6
Application A1
Application A2
Application B1
Application B2

Unit Evaluation: Application A1
Application A2
Application B1
Application B2
Quiz #2
Text #2

Terms (vocabulary):

quick menu
block menu
cursor movement
repeat command
markers
copying a block
automatic markers
onscreen menu
help menu
scrolling
stopping commands
block markers
partial line deletion
print menu
insert mode
delete
moving a block
numbered markers
deleting a block

Microcomputer Applications for Health Care Professionals

STUDENT'S GUIDE (WORDSTAR)

Unit 5

Unit Title: WordStar (Cont.)

Contents of Unit:

1. Find and Replace
2. File Operations
3. Onscreen Formatting

Unit Objectives: Upon completion of this unit, the student will be able to:

1. Differentiate between find and replace operations
2. Find a character string in a document
3. Find a character string and replaces it with another character string
4. Repeat either of the above operations
5. Use the find and replace options to control the effect of the command
6. Describe the file operations available in WordStar
7. Rename a file
8. Copy a file
9. Delete a file
10. Display or suppresses the file directory
11. Print one file while editing another
12. Write a block from the document being edited to a disk file
13. Read a file into the document being edited
14. Exit from the Main Menu to the operating system
15. Identify the formatting accomplished via the Onscreen Menu
16. Reset the left and right margins
17. Release the margins
18. Set and removes tabs
19. Center a line
20. Turn right-margin justification on and off
21. Turn hyphen help on and off
22. Suppress the display of Print Menu formatting characters

Rationale: Students must understand and be able to demonstrate proficiency in executing basic procedures and commands.

Learning Activities: Laboratory 3

Understanding and Using WordStar

Part 2: Unit 7
Part 2: Unit 8
Part 2: Unit 9
Application B1
Application B2
Application C1
Application C2
Application D1
Application D2
Application D3

Unit Evaluation: Application B1
Application B2
Application C1
Application C2
Application D1
Application D2
Application D3
Quiz #2
Test #2

Terms (vocabulary):

find vs. replace
repeating find and replace
block reading and writing
tabs
find operations
find options
file management
save command
margins
line functions
replace operations
replace options
printing while editing
exit command
marginal mathematics
toggles

Microcomputer Applications for Health Care Professionals

STUDENT'S GUIDE (WORDSTAR)

Unit 6

Unit Title: WordStar (Cont.)

Contents of Unit:

1. Pagination, Headings and Footings
2. Printing Special Effects

Unit Objectives: Upon completion of this unit, the student will be able to:

1. Describe a dot command
2. Describe a page break
3. Describe headings and footings
4. Start a new page
5. Start a new page if fewer than a certain number of lines remain on the current page
6. Eliminate page numbering
7. Change the number assigned to a page
8. Specify a heading text
9. Specify a footing text
10. Describe fundamental operational differences between draft quality and letter quality printers
11. Utilize all the Print Menu special effects commands

Rationale: Students must understand and be able to demonstrate proficiency in executing basic procedures and commands.

Learning Activities: Laboratory 4

Understanding and Using WordStar

Part 2: Unit 10
Application C1
Part 2: Unit 11
Application D1
Application D2
Application D3

Unit Evaluation: Application C1
Application D1
Application D2
Application D3
Test #2

Terms (vocabulary):

dot commands	page breaks	page numbering
headings	footings	justification
special effects	boldfacing	double striking
underscore	superscript	subscript
overprint character		non-break space

Microcomputer Applications for Health Care Professionals

STUDENT'S GUIDE (WORDSTAR AND READINGS)

Unit 7

Unit Title: WordStar (Cont.)
Applications for Health Care Professionals

Contents of Unit:

1. Print Command Options
2. Help Menu
3. Applications for Health Care Professionals

Unit Objectives: Upon completion of this unit, the student will be able to:

Concerning WordStar:

1. Describe each of the various print options
2. Print a file
3. Print only selected pages of a document
4. Print a file without page formatting
5. Print on single sheets of paper
6. Interrupt printing
7. Describe the levels of help available during editing
8. Obtain Help on several different topics

Concerning the importance to health care:

1. Discuss "Is the Microcomputer for You?"
2. Describe selecting the microcomputer
3. Discuss introducing the system
4. Discribe programs in action
5. Describe information centers
6. Describe hardware
7. Describe software
8. Discuss certralized versus decentralized word processing
9. Describe list management
10. Discuss facilities management
11. Discuss policy manuals and phone directories
12. Describe word processing in the medical records department
13. Describe word processing potential

Rationale: Students must understand and be able to demonstrate proficiency in executing basic procedures and commands and the importance to health care professionals.

Learning Activities: Laboratory 5

Understanding and Using WordStar

Part 2: Unit 12
Part 2: Unit 13
Application D1
Application D2
Application D3

Readings

Microcomputers in Health Care Management

Chapters 3 and 5

Paper assignment

Unit Evaluation: Application D1
Application D2
Application D3
Test #2
Paper assignment

Terms (vocabulary):

print options
setting help levels
interrupting printing
on-line help
help menu functions

STUDENT LAB GUIDE

Microcomputer Applications for Health Care Professionals

STUDENT'S GUIDE (LABORATORY)

Assignment #1 - Lab 1

Unit Title: WordStar

Assignment Is Associated With: Unit 3 - WordStar

Time Required: 7 hours

Objectives: Upon completion of this lab, the student will be able to:

1. Prepare a disk for use
2. Copy single files
3. Copy all files
4. Copy an entire disk
5. Identify disk(s) to start WordStar
6. Describe how WordStar uses the keyboard
7. Identify the levels of operation of WordStar
8. Load the WordStar program
9. Describe a document file
10. Identify what IBM PC keyboard keys substitute for common cursor movement keys
11. Create a new document
12. Edit a previously created document
13. Save a file to disk
14. Print a file
15. Describe file naming conventions
16. Identify how to use file names to your advantage
17. Describe how WordStar's automatic backup system functions
18. Create backup files on a data disk

Materials Required:

Self-Study:
- Textbook

Laboratory:
- Textbook
- One (1) Floppy Disk
- WordStar Program Disk
- WordStar Data Disk from West Publishing Co.
- IBM PC

Laboratory Handouts: None

Learning Activities (assignments):

Laboratory: Complete Lab 1

Understanding and Using WordStar

1. Appendix A
2. Part 1: Page 1
3. Part 1: Unit 1
4. Part 1: Unit 2
5. Part 1: Unit 3
6. Application A1
7. Application A2

Steps:

1. Read assignments in textbook
2. Prepare a disk for use
3. Practice WordStar commands in textbook
4. Answer Reviews Questions (if included)
5. Complete the Guided Activities (if included)
6. Complete Applications A1 and A2
7. Complete Quiz 2
8. Complete Test 2

Evaluation:

Self-Study:
Quiz #2 (objective)
Test #2 (objective)
Laboratory:
Applications A1 and A2 (performance)

Microcomputer Applications for Health Care Professionals

STUDENT'S GUIDE (LABORATORY)

Assignment #2 - Lab 2

Unit Title: WordStar

Assignment Is Associated With: Unit 4 - WordStar

Time Required: 7 hours

Objectives: Upon completion of this lab, the student will be able to:

1. Describe the five menus subordinate to the Main Menu
2. Move to the left or right side of the line, the top or bottom of the screen, and the beginning or end of the file
3. Center text on a line
4. Underline or boldface text
5. Abandon the version of the file currently being edited
6. Change the help level
7. Differentiate between insert and over-strike modes
8. Scroll the document up or down
9. Delete a word at a time
10. Delete part of a line
11. Delete an entire line
12. Insert a hard return
13. Stop a command
14. Describe markers and block operations
15. Place markers in a document
16. Move the cursor to those markers
17. Mark a block of text
18. Hide and displays the block markers
19. Move a block of text from one place to another
20. Make a copy of a block of text elsewhere in the document
21. Delete a block of text

Materials Required:

Self-Study:
Textbook
Laboratory:
Textbook
One (1) Floppy Disk
WordStar Program Disk
WordStar Data Disk from West Publishing Co.
IBM PC

Laboratory Handouts: None

Learning Activities (assignments):

Laboratory: Complete Lab 2

Understanding and Using WordStar

1. Part 1: Unit 4
2. Part 1: Unit 5
3. Part 2: Unit 6
4. Application A1
5. Application A2
6. Application B1
7. Application B2

STEPS:

1. Read assignments in textbook
2. Practice WordStar commands in textbook
3. Answer Reviews Questions in textbook (if included)
4. Complete the Guided Activities in textbook (if included)
5. Complete Quiz 2
6. Complete Test 2

Evaluation:

Self-Study:
Quiz #2 (objective)
Test #2 (objective)
Laboratory:
Applications A1 and A2 (performance)
Applications B1 and B2 (performance)

Microcomputer Applications for Health Care Professionals

STUDENT'S GUIDE (LABORATORY)

Assignment #3 - Lab 3

Unit Title: WordStar

Assignment Is Associated With: Unit 5 - WordStar

Time Required: 7 hours

Objectives: Upon completion of this lab, the student will be able to:

1. Differentiate between find and replace operations
2. Find a character string in a document
3. Find a character string and replaces it with another character string
4. Repeat either of the above operations
5. Use the find and replace options to control the effect
6. Describe the file operations available in WordStar
7. Rename a file
8. Copy a file
9. Delete a file
10. Display or suppresses the file directory
11. Print one file while editing another
12. Write a block from the document being edited to a disk file
13. Read a file into the document being edited
14. Exit from the Main Menu to the operating system
15. Identifie the formatting accomplished via the Onscreen Menu
16. Reset the left and right margins
17. Release the margins
18. Set and removes tabs
19. Center a line
20. Turn right-margin justification on and off
21. Turn hyphen help on and off
22. Suppress the display of Print Menu formatting characters

Materials Required:

Self-Study:
Textbook
Laboratory:
Textbook
One (1) Floppy Disk
WordStar Program Disk
WordStar Data Disk from West Publishing Co.
IBM PC

Laboratory Handouts: None

Learning Activities (assignments):

Laboratory: Complete Lab 3

Understanding and Using WordStar

1. Part 2: Unit 7
2. Part 2: Unit 8
3. Part 2: Unit 9
4. Application B1
5. Application B2
6. Application C1
7. Application C2
8. Application D1
9. Application D2
10. Application D3

Steps:

1. Read assignments in textbook
2. Practice WordStar commands in textbook
3. Answer Reviews Questions in textbook (if included)
4. Complete the Guided Activities in textbook (if included)
5. Complete Quiz 2
6. Complete Test 2

Evaulation:

Self-Study:
Quiz #2 (objective)
Test #2 (objective)
Laboratory:
Applications B1 and B2 (performance)
Applications C1 and C2 (performance)
Applications D1, D2 and D3 (performance)

Microcomputer Applications for Health Care Professionals

STUDENT'S GUIDE (LABORATORY)

Assignment #4 - Lab 4

Unit Title: WordStar

Assignment Is Associated With: Unit 6 - WordStar

Time Required: 7 hours

Objectives: Upon completion of this lab, the student will be able to:

1. Describe a dot command
2. Describe a page break
3. Describe headings and footings
4. Start a new page
5. Start a new page if fewer than a certain number of lines remain on the current page
6. Eliminate page numbering
7. Change the number assigned to a page
8. Specify a heading text
9. Specify a footing text
10. Describe fundamental operational differences between draft quality and letter quality printers
11. Utilize all the Print Menu special effects commands

Materials Required:

Self-Study:
Textbook
Laboratory:
Textbook
One (1) Floppy Disk
WordStar Program Disk
WordStar Data Disk from West Publishing Co.
IBM PC

Laboratory Handouts: None

Learning Activities (assignments):

Laboratory: Complete Lab 4

Understanding and Using WordStar

1. Part 2: Unit 10
2. Part 2: Unit 11
3. Application D1
4. Application D2
5. Application D3

Steps:

1. Read assignments in textbook
2. Practice WordStar commands in textbook
3. Answer Reviews Questions in textbook (if included)
4. Complete the Guided Activities in textbook (if included)
5. Complete Test 2

Evaluation:

Self-Study:
Test #2 (objective)
Laboratory:
Applications D1, D2 and D3 (performance)

Microcomputer Applications for Health Care Professionals

STUDENT'S GUIDE (LABORATORY)

Assignment #5 - Lab 5

Unit Title: WordStar

Assignment Is Associated With: Unit 7 - WordStar

Time Required: 7 hours

Objectives: Upon completion of this lab, the student will be able to:

Concerning WordStar:

1. Describe each of the various print options
2. Print a file
3. Print only selected pages of a document
4. Print a file without page formatting
5. Print on single sheets of paper
6. Interrupt printing
7. Describe the levels of help available during editing
8. Obtain Help on several different topics

Concerning the importance to health care:

1. Discuss "Is the Microcomputer for You?"
2. Describe selecting the microcomputer
3. Discuss introducing the system
4. Describe programs in action
5. Describe information centers
6. Describe hardware
7. Describe software
8. Discuss centralized versus decentralized word processing
9. Describe list management
10. Discuss facilities management
11. Discuss policy manuals and phone directories
12. Describe word processing in the medical records department
13. Describe word processing potential

Materials Required:

Self-Study:
Textbook
Laboratory:
Textbook
One (1) Floppy Disk
WordStar Program Disk
WordStar Data Disk from West Publishing Co.
IBM PC

Laboratory Handouts: None

Learning Activities (assignments):

Laboratory: Complete Lab 5

Understanding and Using WordStar

1. Part 2: Unit 12
2. Part 2: Unit 13
3. Application D1
4. Application D2
5. Application D3

Microcomputers in Health Care Management

1. Chapter 3
2. Chapter 5

Paper:

1. Use of microcomputers in the student's health care discipline
2. Use of word processing in the student's health care discipline

Steps:

1. Read assignments in textbook
2. Practice WordStar commands in textbook
3. Answer Reviews Questions in textbook (if included)
4. Complete the Guided Activities in textbook (if included)
5. Complete Test 2
6. Complete paper

Evaulation:

Self-Study:
Test #2 (objective)
Laboratory:
Applications D1, D2 and D3 (performance)
Paper

INSTRUCTOR'S COURSE SYLLABUS

Microcomputer Applications for Health Care Professionals

INSTRUCTOR'S COURSE SYLLABUS

COURSE TITLE: MICROCOMPUTER APPLICATIONS FOR HEALTH CARE PROFESSIONALS - WORDSTAR

COURSE NUMBER:

Prefix	No.	0 Lecture Hrs.	45 Lab Hrs.	1 Credit Hrs.

CATALOG DESCRIPTION:

An introduction to microcomputer use in health care settings. Topics include computer system information, wordprocessing, and applications for the health care professional.

PREREQUISITE:

None

TEXTS:

Essentials of Data Processing, by Nancy A. Floyd, Times Mirror/Mosby College Publishing, 1987.

Microcomputers in Health Care Management, by William W. Christensen and Eugene I. Stearns, Aspen Publication, 1984.

Understanding and Using WordStar, by Steven C. Ross, West Publishing Company, 1986.

NOTE TO INSTRUCTOR: You may want to have several copies of the textbook, Microcomputers in Health Care Management, available to students on reserve in the library if the cost of textbooks is a concern.

ALTERNATE TEXTS:

Concepts and Issues in Health Care Computing, by H. Dominic Covvey, Nancy H. Craven, and Neil H. McAlister, C. V. Mosby Company, 1987.

Using IBM Microcomputers, by Keiko M. Pitter and Richard L. Pitter, Mitchell Publishing, Inc., 1986.

REFERENCES:

Computer Annual, by Robert H. Blissmer, John Wiley & Sons, 1986-1987.

Four Software Tools, by Tim Duffy, Wadsworth Publishing Company, 1987.

Power Pack for the IBM PC, by Dravillas/Stillwell/ Williams, Times Mirror/Mosby College Publishing, 1986.

Understanding and Using Microcomputers, by Steven M. Zimmerman and Leo M. Conrad, West Publishing Company, 1986.

Using Applications Software, by Donald H. Bell, Ashton-Tate Publishing Group, 1986.

EQUIPMENT AND MATERIALS REQUIRED:

HARDWARE: IBM PC with 2 disk drives and compatible printer per student

SOFTWARE: WordStar software and manual per student

WordStar Data Disk from West Publishing Co.

INSTRUCTIONAL PROCESS:

1. This is a self-paced course that will take approximately 45 hours to complete for 1 hour credit.

2. Reading and laboratory assignments can be found in the materials, Student's Guide (Laboratory), attached.

3. A paper describing the use of microcomputers in general, and word processing in particular, in the student's health care discipline will be required.

4. Tests and quizzes will be given.

5. Application program disks, data disks, and tests and quizzes are available from the check-out desk in the Learning Resource Center.

6. All laboratory assignments, tests and quizzes, and the paper must be completed by the last day of the course. Although this is a self-paced course, there is a class schedule attached to the Student's Course Syllabus. The student may use it as a suggested schedule to complete the course if so desired.

7. The student who has knowledge and experience in any of the course content may demonstrate proficiency and receive credit for it by successfully completing tests, quizzes, laboratory assignments, and/or the paper.

NOTE TO INSTRUCTOR:

The textbook, Essentials of Data Processing, by Nancy A. Floyd comes with complementary copies of an instructor's guide, a test bank and a student study guide. A computerized testing package, Microtest, is also complementary when twenty-five (25) or more copies of the textbook is ordered for students to purchase. Contact C. V. Mosby Company at 1-800-325-4177 for procedures to secure these items.

The textbook on WordStar comes with complementary copies of an instructor's manual and test bank and the data disk listed in the software needs section. Contact West Publishing Co. at 1-800-328-9424 for procedures to secure these items.

EVALUATION OF STUDENTS:

Examinations: Two unit tests will be given.

Quizzes: Two quizzes will be given periodically. Each quiz will be similar to exam questions.

Paper: One paper will be required.

Laboratory Assignments: These will be found in the Student's Guide (Laboratory).

NOTE TO INSTRUCTOR:

Items for tests and quizzes on the Floyd and Ross textbooks are located in the materials available from the respective publishers.

Items for tests and quizzes on the textbook, Microcomputers in Health Care Management, by Christensen and Stearns are attached to the Instructor's Syllabus.

FINAL GRADE DETERMINATION:

Grades for the semester will be determined based on the accumulated points earned. To determine a tentative grade, divide the total points earned by the total possible points. The grading scale will be strictly 90, 80, 70, 60 percent of the possible points.

Approximately 40% of the total points will be from lab assignments, 20% from tests, 20% from quizzes, and 20% from the paper.

COMPETENCY STATEMENTS:

By the end of the course, the student will be able to:

1. Initialize a diskette.
2. Prepare a backup file.
3. Maintain a backup file.
4. Create documents using word processing software.
5. Edit, save, and retrieve documents using WPS.
6. Print document using continuous-feed paper on dot matrix, letter quality, and/or laser printer.
7. Print document using single-sheet paper.
8. Output information according to sort criteria.
9. Send and receive messages via electronic mail system.
10. Merge text files using WPS.
11. Log on to use network software.
12. Explain the basic concepts of word processing.
13. Describe the components of a word processing system.
14. Describe the components of the information processing cycle.
15. Describe the various technologies used to create, store, retrieve, process, and distribute information. used.
16. Explain the basic concepts of telecommunications.
17. Define desktop publishing.
18. Describe the conponents of computer hardware.
19. Describe the two basic types of software.
20. Explain the ways in which operating systems can be used.
21. Describe the different levels of programming languages.

22. Describe the role of computers in business and society.
23. Explain the use of a local area network.
24. Describe the factors to be considered in selecting a computer.
25. Describe the factors to be considered in selecting applications software.
26. Describe the role of computers in business and society (hospitals).

COURSE OUTLINE:

CONTENTS OF UNIT 1: Information on Computer Systems

1. The components of computer hardware
2. The two basic types of software
3. The ways in which operating systems can be used
4. The different levels of programming languages
5. The role of computers in business, medicine, allied health and society
6. The factors to be considered in selecting a microcomputer
7. The factors to be considered in selecting applications software
8. The basic concepts of telecommunications
9. The components of the information processing cycle

CONTENTS OF UNIT 2: Information on Computer Systems (Cont.)

1. The microcomputer revolution
2. The database and its evolution
3. The basic concepts of electronic spreadsheets
4. The basic comcepts of wordprocessing
5. The basic concepts of database management
6. The use of graphics
7. The use of networking
8. The current issues in telecommunications

CONTENTS OF UNIT 3: Wordprocessing - WordStar

1. Getting Started on Your Microcomputer
2. Fundamental Operations
3. The WordStar Enviornment
4. Creating a Document
5. File Management

CONTENTS OF UNIT 4: Wordprocessing - WordStar

1. Quick Look At Menus
2. Menu Editing Commands
3. Markers and Block Move, Copy and Delete

CONTENTS OF UNIT 5: Wordprocessing - WordStar

1. Find and Replace
2. File Operations
3. Onscreen Formatting

CONTENTS OF UNIT 6: Wordprocessing - WordStar

1. Pagination, Headings and Footings
2. Printing Special Effects

CONTENTS OF UNIT 7: Wordprocessing - WordStar

1. Print Command Options
2. Help Menu
3. Applications for Health Care Professionals

Instructor's Course Syllabus
Microcomputer Applications for Health Care Professionals

Test Items for Textbook:

Microcomputers in Health Care Management

CHAPTER 3:

1. Microcomputers are generally designed to be used:

   a. by one person at a time
   b. as part of a network
   c. in conjunction with a minicomputer
   d. as an adjunct to a mainframe computer

   Answer: A Reference: p. 38

2. The most important objective to keep in mind while considering the purchase of a microcomputer system is

   a. the cost
   b. what applications programs will be used
   c. its intended use
   d. the memory capacity

   Answer: C Reference: p. 38

3. Which is not a limitation of microcomputer programs?

   a. the external memory available
   b. the internal memory available
   c. the types of application programs available
   d. the actual algorithms in the program itself

   Answer: C Reference: p. 40

4. Health care staff members may feel _____ often associated with the introduction of new technology.

   a. relief
   b. anxiety
   c. excitement
   d. possessiveness

   Answer: B Reference: p. 42

CHAPTER 3 cont.

5. To encourage the health care staff to use the microcomputer constructively:

   a. develop a schedule so everyone works on the computer everyday
   b. assign one person at a time to work with an application program until he knows it well
   c. arrange demonstrations that show the effectiveness of the microcomputer by experts
   d. make assignments that allow staff members to interact with the computer in a useful and successful way

   Answer: D Reference: p. 43

CHAPTER 5:

1. In microcomputer word processing, the two basic types of memory are:

   a. ROM-based and RAM-based
   b. tape-based and disk-based
   c. RAM-based and disk-based
   d. ROM-based and tape-based

   Answer: C Reference: p. 130

2. The mass storage system typically used with a microcomputer is:

   a. the floppy disk
   b. magnetic tape
   c. the hard disk
   d. magnetic disk

   Answer: A Reference: p. 130

3. Spooling means:

   a. text can be continuously scrolled on the CRT
   b. the user can interact with the system while the system is printing text
   c. the rotation of the floppy disk in the disk drive
   d. storing data on magnetic disks

   Answer: B Reference: p. 133

CHAPTER 5 CONT.

4. Which is not an advantage of using microcomputers for word processing?

   a. cost
   b. ease of learning procedures
   c. use by many people
   d. small memory capacity

   Answer: D Reference: p. 133

5. Which is not a word processing application that can be used by health care professionals?

   a. creation and editing of articles and books
   b. financial reports
   c. standard document formats
   d. policy and procedure manuals

   Answer: B Reference: p. 156

SPREADSHEET APPLICATIONS

STUDENT COURSE SYLLABUS

Microcomputer Applications for Health Care Professionals

STUDENT'S COURSE SYLLABUS

COURSE TITLE: MICROCOMPUTER APPLICATIONS FOR HEALTH CARE PROFESSIONALS - LOTUS 1-2-3

COURSE NUMBER:

Prefix	No.	0 Lecture Hrs.	45 Lab Hrs.	1 Credit Hrs.

CATALOG DESCRIPTION:

An introduction to microcomputer use in health care settings. Topics include computer system information, spreadsheets, and applications for the health care professional.

PREREQUISITE:

None

TEXTS:

Essentials of Data Processing, by Nancy A. Floyd, Times Mirror/Mosby College Publishing, 1987.

Microcomputers in Health Care Management, by William W. Christensen and Eugene I. Stearns, Aspen Publication, 1984.

Understanding and Using Lotus 1-2-3, by Steven C. Ross, West Publishing Company, 1986.

INSTRUCTIONAL PROCESS:

1. This is a self-paced course that will take approximately 45 hours to complete for 1 hour credit.

2. Reading and laboratory assignments can be found in the materials, Student's Guide (Laboratory) attached.

3. A paper describing the use of microcomputers in the student's health care discipline will be required. The paper will contain a section on the use of spreadsheets and a spreadsheet application designed by the student.

4. Tests and quizzes will be given.

5. Application program disks, data disks, and tests and quizzes are available from the check-out desk in the Learning Resource Center.

6. All laboratory assignments, tests and quizzes, and the paper must be completed by the last day of the course. Although this is a self-paced course, there is a class schedule attached to the Student's Course Syllabus. The student may use it as a suggested schedule to complete the course if so desired.

7. The student who has knowledge and experience in any of the course content may demonstrate proficiency and receive credit for it by successfully completing tests, quizzes, laboratory assignments, and/or the paper.

OBJECTIVES:

After completion of this course, the student will be able to:

1. Understand basic information concerning computer systems

2. Demonstrate proficiency in use of spreadsheets

3. Understand applications of spreadsheets in health care

EVALUATION OF STUDENTS:

Examinations: Two unit tests will be given.

Quizzes: Two quizzes will be given periodically. Each quiz will be similar to exam questions.

Paper: One paper will be required.

Laboratory Assignments: These will be found in the Student's Guide (Laboratory).

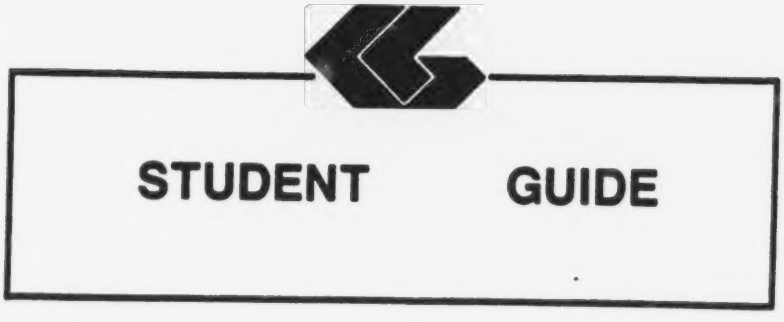
FINAL GRADE DETERMINATION:

Grades for the semester will be determined based on the accumulated points earned. To determine a tentative grade, divide the total points earned by the total possible points. The grading scale will be strictly 90, 80, 70, 60 percent of the possible points.

Approximately 40% of the total points will be from lab assignments, 20% from tests, 20% from quizzes, and 20% from the paper.

CLASS SCHEDULE:

Week No.	Description	Due	Assignment
	INTRODUCTION/OVERVIEW		Essentials of Data Processing
1	Information on Computer Systems	Quiz 1	Chapters 1, 2, 3, and 4
2	Information on Computer Systems (Cont.)	Test 1	Chapters 1, 2, 3, 4, 6, 8, 9, 10
	SPREADSHEETS: LOTUS 1-2-3		Understanding and Using Lotus 1-2-3
3	Getting Started on Your Microcomputer Fundamental Spreadsheet Operations The Lotus Enviornment The Lotus Worksheet Operators and Functions	Lab 1	Appendix A Part 1: Page 1 Part 1: Unit 1 Part 1: Unit 2 Part 1: Unit 3 Application A
4	Changing the Appearance of the Worksheet Print Command	Quiz 2 Lab 2 Appli. A	Part 1: Unit 4 Part 1: Unit 5 Application A
5	Calculation Copy and Move Commands	Lab 3 Appli. B Appli. C	Part 2: Unit 6 Part 2: Unit 7 Application B Application C
6	Screen Graphics Paper Graphics	Test 2 Lab 4 Appli. D Paper	Part 2: Unit 8 Part 2: Unit 9 Application D
	Applications for Health Care Professionals		Microcomputers in Health Care Management Chapters 3, 4, 7 Paper assignment


STUDENT GUIDE

Microcomputer Applications for Health Care Professionals

STUDENT'S GUIDE (READINGS)

Unit 1

Unit Title: Information on Computer Systems

Contents of Unit:

1. The components of computer hardware
2. The two basic types of software
3. The ways in which operating systems can be used
4. The different levels of programming languages
5. The historical development of computers
6. The role of computers in business, medicine, allied health and society
7. The factors to be considered in selecting a microcomputer
8. The factors to be considered in selecting applications software
9. The basic concepts of telecommunications
10. The components of the information processing cycle

Unit Objectives: Upon completion of this unit, the student will be able to:

1. Define the term computer
2. Recount the evolution of computers
3. Discuss how computers affect our lives
4. Describe the characteristics of the various input and output devices
5. Explain the differences between sequential and random access and the advantages of each
6. Explain the purpose of secondary storage
7. List several devices that must be accessed sequentially and several that may be accessed randomly
8. Explain how data is stored on disk and on tape
9. Identify the components of the central processing unit
10. Describe what occurs during a machine cycle
11. Explain how main storage differs from secondary storage and the purpose of each
12. Differentiate between multiprogramming and multi-processing
13. Discribe the purpose of an operating system and compares several current ones
14. Explain what software is
15. Discuss custom programming and why it is necessary

16. Describe several popular types of applications software: electronic spreadsheets, word processing programs, and integrated software
17. Explain what is meant by high- and low-level languages
18. Discuss why so many languages exist and describes several of them
19. Explain the purpose of query languages
20. Describe what is meant by natural languages

Rationale: Students must understand and be able to describe basic information and concepts concerning computer systems in general.

Learning Activities: Essentials of Data Processing
Read Chapters 1, 2, 3, and 4

Unit Evaluation: Quiz #1 and Test #1

Terms (vocabulary):

computer	input device	output device
sequential access	random access	secondary storage
data	disk	tape
central processing unit (CPU)	machine cycle	main storage
programming	operating system	software
electronic spreadsheets	custom programming	query languages
high-level language	word processing	integrated software
	word processing programs	low-level language
	natural languages	applications software

Microcomputer Applications for Health Care Professionals

STUDENT'S GUIDE (READINGS)

Unit 2

Unit Title: Information on Computer Systems (Cont.)

Contents of Unit:

1. The microcomputer revolution
2. The database and its evolution
3. The basic concepts of electronic spreadsheets
4. The basic concepts of wordprocessing
5. The basic concepts of database management
6. The use of graphics
7. The use of networking
8. The current issues in telecommunications

Unit Objectives: Upon completion of this unit, the student will be able to:

1. Discuss the history of the microcomputer revolution
2. Describe the unique hardware characteristics of the microcomputer
3. Explain what a "supermicro" is
4. Discuss the various uses of microcomputers
5. Evaluate microcomputer hardware
6. Evaluate software
7. Know how to care for the microcomputer system
8. Define database
9. Discuss why database evolved
10. Describe the purpose of a query language
11. List the main functions of a database management system
12. Name the three most common types of database organization and describes their structure
13. Discuss the problems arising from the collection of large banks of data in a central location and problems with privacy, security, and ethics
14. Explain what a spreadsheet is and how it is used
15. Describe word processing and its advantages over both typing and using a memory typewriter
16. Discuss ways that database is used on a microcomputer
17. Define graphics and describes how they are used in a microcomputer environment
18. Discuss the features, such as windowing, that are used in these packages
19. Describe a telecommunications system and its hardware components
20. Explain what is meant by "handshaking"

21. Identify several types of communication links
22. Define a network
23. Describe several network configurations
24. Discuss the advantages and disadvantages of distributed data processing
25. Differentiate between distributed data processing and a distributed database
26. Discuss the current issues in telecommunications: privacy, security, and integrity
27. Discuss current trends in telecommunications

Rationale: Students must understand and be able to describe basic information and concepts concerning microcomputers, word processing, electronic spreadsheets, database management, and telecommunications.

Learning Activities: Essentials of Data Processing
Read Chapters 1, 2, 3, 4, 6, 8, 9, and 10

Unit Evaluation: Test #1

Terms (vocabulary):

microcomputer	hardware	supermicro
software	microcomputer system	database
query language	centralized data	database management system
data privacy	data security	wordprocessing
data ethics	spreadsheet	handshaking
graphics	windowing	network
telecommunications system	communication links	distributed data processing
telecommunications integrity	data processing	distributed database
telecommunications security	telecommunications privacy	
	telecommunications trends	

Microcomputer Applications for Health Care Professionals

STUDENT'S GUIDE (dBASE III)

Unit 3

Unit Title: dBASE III

Contents of Unit:

1. Getting Started on Your Microcomputer
2. Fundamental Data Base Operations
3. The Data Base Concept
4. The dBase Environment

Unit Objectives: Upon completion of this unit, the student will be able to:

1. Prepare a disk for use
2. Copy single files
3. Copy all files
4. Copy an entire disk
5. Define data base management terms
6. Describe important considerations before you begin to create a data base system
7. Describe a simple data base system on paper
8. Describe the use of the dBASE disks
9. Describe how dBASE uses the keyboard
10. Load the dBASE program

Rationale: Students must understand and be able to demonstrate proficiency in executing basic procedures and commands.

Learning Activities: Laboratory 1

Understanding and
Using dBASE III

Appendix A
Part 1: Page 1
Part 1: Unit 1
Part 1: Unit 2
Application A

Unit Evaluation: Application A
Quiz #2
Test #2

Terms (vocabulary):

disk operating system (DOS)
numeric keypad keys
startup procedures
default drive
copying files
erasing files
data base mamage-ment system (DBMS)
record
data dictionary
data base system design
startup procedure
function keys
toggle key functions
loading DOS
shutdown procedures
disk preparation
copying an entire disk
print screen function
dBASE III, version 1.2
table
fields
index
dBASE diskettes
dBASE II
multiple key combinations
caps lock key
the DOS prompt
DOS commands
disk directory
deleting files
pause display
file
byte
key
data base
dBASE keyboard

Microcomputer Applications for Health Care Professionals

STUDENT'S GUIDE (dBASE III)

Unit 4

Unit Title: dBASE III (Cont.)

Contents of Unit:

1. Data File Creation
2. Intermediate Data Base Operations
3. Conditions/Expressions
4. Summary Statistics

Unit Objectives: Upon completion of this unit, the student will be able to:

1. Describe the various types of fields
2. Describe how to structure a data file
3. Create a data file
4. Enter data into the file
5. Display the file contents
6. Change enteries in the file
7. Backup data files
8. Differentiate between logical conditions and computed expressions
9. Define "order of precedence"
10. Describe how each of the operators is used in expressions and conditions
11. Describe the various categories of functions
12. Write expressions and conditions using the various operators
13. Write expressions and conditions using functions
14. Utilize each of the summary statistics commands

Rationale: Students must understand and be able to demonstrate proficiency in executing basic procedures and commands.

Learning Activities: Laboratory 2

Understanding and Using dBASE III

Part 1: Unit 3
Part 2: Page 41
Part 2: Unit 4
Part 2: Unit 5
Application A
Application B

Unit Evaluation: Application A
Application B
Quiz #2
Test #2

Terms (vocabulary):

commanding dBASE
field name
data entry
editing data
logical conditions
vs. computed
expressions
averages
quitting
field type
saving your work
backup
the calculator
creating a data file
constrained lists
functions
field width
viewing data in
a data file
operators
counts
sums

Microcomputer Applications for Health Care Professionals

STUDENT'S GUIDE (dBASE III)

Unit 5

Unit Title: dBASE III (Cont.)

Contents of Unit:

1. Data File Order and Search
2. Operating Parameters and Disk Files

Unit Objectives: Upon completion of this unit, the student will be able to:

1. Describe the record pointer and current record
2. Differentiate between sorting and indexing
3. Describe what ASCII collating sequence means
4. Differentiate between finding locating
5. Sort a file
6. Indexe a file
7. Find a record
8. Locate records
9. Identify the purpose a file serves by the file extension
10. Describe the purpose of the various operating parameters and how to alter those parameters
11. Obtain a directory of data files on a disk
12. Obtain a directory of all files on a disk
13. Obtain a directory of all files of a certain type
14. Copy all or a portion of a data file to another data file
15. Copy all or a portion of a data file to a file suitable for importation into a spreadsheet or wordprocessing program
16. Display the current settings of function keys
17. Change the current settings of function keys

Rationale: Students must understand and be able to demonstrate proficiency in executing basic procedures and commands.

Learning Activities: Laboratory 3

Understanding and Using dBASE III

Part 2: Unit 6
Part 2: Unit 7
Application B
Application C

Unit Evaluation: Application B
Application C
Quiz #3
Test #2

Terms (vocabulary):

ordering the data in a file
parameters
displaying parameters
input from other applications software
sorting
searching through a file
output to other applications software
indexing
record pointer
operating parameters
disk files

Microcomputer Applications for Health Care Professionals

STUDENT'S GUIDE (dBASE III)

Unit 6

Unit Title: dBASE III (Cont.)

Contents of Uint:

1. Data File Changes
2. Report Generation
3. Label Generation

Unit Objectives: Upon completion of this unit, the student will be able to:

1. Differentiate among edit, change and replace commands
2. Describe the various stages of the record deletion process
3. Combine two data files
4. Change selected fields of selected records
5. Replace field contents on a selective basis
6. Delete, recall, and purge records
7. Modify the structure of a data file
8. Define the terminology of reports
9. Create and produces a report
10. Create labels using dBASE III

Rationale: Students must understand and be able to demonstrate proficiency in executing basic procedures and commands.

Learning Activities: Laboratory 4

Understanding and Using dBASE III

Part 2: Unit 8
Part 2: Unit 9
Part 2: Unit 10
Application C
Application D

Unit Evaluation: Application C
Application D
Quiz #3
Test #2

Terms (vocabulary):

adding data	changing data	deleting records
temporary deletion	permanent deletion	modifying file structure
report	report format	report generation
field definition	producing reports	
creating label format	producing labels	

Microcomputer Applications for Health Care Professionals

STUDENT'S GUIDE (READINGS)

Unit 7

Unit Title: Applications for Health Care Professionals

Contents of Unit:

1. Applications for Health Care Professionals

Unit Objectives: Upon completion of this unit, the student will be able to:

Concerning the importance to health care:

1. Describe field, records and files
2. Describe storing information
3. Describe sorting data
4. Describe report generation
5. Describe memory
6. Describe choosing a DBM program
7. Describe special purchase tracking
8. Describe project tracking
9. Describe facilities management
10. Describe an environmental quality assurance program
11. Describe financial management
12. Describe medical records applications

Rationale: Students must understand and be able to describe the importance of data base management to health care professionals.

Learning Activities: Laboratory 5

Microcomputers in Health Care Management

Chapters 3 and 6

Paper assignment

Unit Evaluation: Test #2
Paper assignment

Terms (vocabulary):

field
storing information
memory
project tracking
financial management
records
sorting data
DBM program
facilities management
files
report generation
special purchase tracking
environmental quality assurance program

STUDENT LAB GUIDE

Microcomputer Applications for Health Care Professionals

STUDENT'S GUIDE (LABORATORY)

Assignment #1 - Lab 1

Unit Title: dBASE III

Assignment Is Associated With: Unit 3 - dBASE III

Time Required: 7 hours

Objectives: Upon completion of this lab, the student will be able to:

1. Prepare a disk for use
2. Copy single files
3. Copy all files
4. Copy an entire disk
5. Define data base management terms
6. Describe important considerations before you begin to create a data base system
7. Describe a simple data base system on paper
8. Describe the use of the dBASE disks
9. Describe how dBASE uses the keyboard
10. Load the dBASE program

Materials Required:

Self-Study:
Textbook
Laboratory:
Textbook
One (1) Floppy Disk
dBASE III Program Disk
dBASE III Data Disk from West Publishing Co.
IBM PC

Laboratory Handouts: None

Learning Activities (assignments):

Laboratory: Complete Lab 1

Understanding and Using dBASE III

1. Appendix A
2. Part 1: Page 1
3. Part 1: Unit 1
4. Part 1: Unit 2
5. Application A

Steps:

1. Read assignments in textbook
2. Practice dBASE III commands in textbook
3. Answer Reviews Questions in textbook (if included)
4. Complete the Guided Activities in textbook (if included)
5. Complete Quiz 2
6. Complete Test 2

Evaluation:

Self-Study:
Quiz #2
Test #2 (objective)
Laboratory:
Application A (performance)

Microcomputer Applications for Health Care Professionals

STUDENT'S GUIDE (LABORATORY)

Assignment #2 - Lab 2

Unit Title: dBASE III

Assignment Is Associated With: Unit 4 - dBASE III

Time Required: 7 hours

Objectives: Upon completion of this lab, the student will be able to:

1. Describe the various types of fields
2. Describe how to structure a data file
3. Create a data file
4. Enter data into the file
5. Display the file contents
6. Change enteries in the file
7. Backup data files
8. Differentiate between logical conditions and computed expressions
9. Define "order of precedence"
10. Describ how each of the operators is used in expressions and conditions
11. Describe the various categories of functions
12. Write expressions and conditions using the various operators
13. Write expressions and conditions using functions
14. Utilize each of the summary statistics commands

Materials Required:

Self-Study:
Textbook
Laboratory:
Textbook
One (1) Floppy Disk
dBASE III Program Disk
dBASE III Data Disk from West Publishing Co.
IBM PC

Laboratory Handouts: None

Learning Activities (assignments)

Laboratory: Complete Lab 2

Understanding and Using dBASE III

1. Part 1: Unit 3
2. Part 2: Page 41
3. Part 2: Unit 4
4. Part 2: Unit 5
5. Application A
6. Application B

Steps:

1. Read assignments in textbook
2. Practice dBASE III commands in textbook
3. Answer Reviews Questions in textbook (if included)
4. Complete the Guided Activities in textbook (if included)
5. Complete Quiz 2
6. Complete Test 2

Evaluation:

Self-Study:
- Quiz #2
- Test #2 (objective)

Laboratory:
- Application A (performance)
- Application B (performance)

Microcomputer Applications for Health Care Professionals

STUDENT'S GUIDE (LABORATORY)

Assignment #3 - Lab 3

Unit Title: dBASE III

Assignment Is Associated With: Unit 5 - dBASE III

Time Required: 7 hours

Objectives: Upon completion of this lab, the student will be able to:

1. Describe the record pointer and current record
2. Differentiate between sorting and indexing
3. Describe what ASCII collating sequence means
4. Differentiate between finding locating
5. Sort a file
6. Indexe a file
7. Find a record
8. Locate records
9. Identifie the purpose a file serves by the file extension
10. Describe the purpose of the various operating parameter and how to alter those parameters
11. Obtain a directory of data files on a disk
12. Obtain a directory of all files on a disk
13. Obtain a directory of all files of a certain type
14. Copy all or a portion of a data file to another data file
15. Copy all or a portion of a data file to a file suitable for importation into a spreadsheet or wordprocessing program
16. Display the current settings of function keys
17. Change the current settings of function keys

Materials Required:

Self-Study:
Textbook
Laboratory:
Textbook
One (1) Floppy Disk
dBASE III Program Disk
dBASE III Data Disk from West Publishing Co.
IBM PC

Laboratory Handouts: None

Learning Activities (assignments):

Laboratory: Complete Lab 3

Understanding and Using dBASE III

1. Part 2: Unit 6
2. Part 2: Unit 7
3. Application B
4. Application C

Steps:

1. Read assignments in textbook
2. Practice dBASE III commands in textbook
3. Answer Reviews Questions in textbook (if included)
4. Complete the Guided Activities in textbook (if included)
5. Complete Quiz 3
6. Complete Test 2

Evaluation:

Self-Study:
Quiz #3 (objective)
Test #2 (objective)
Laboratory:
Application B (performance)
Application C (performance)

Microcomputer Applications for Health Care Professionals

STUDENT'S GUIDE (LABORATORY)

Assignment #4 - Lab 4

Unit Title: dBASE III

Assignment Is Associated With: Unit 6 - dBASE III

Time Required: 7 hours

Objectives: Upon completion of this lab, the student will be able to:

1. Differentiate among edit, change and replace commands
2. Describe the various stages of the record deletion process
3. Combine two data files
4. Change selected fields of selected records
5. Replace field contents on a selective basis
6. Delete, recall, and purge records
7. Modify the structure of a data file
8. Define the terminology of reports
9. Create and produces a report
10. Create labels using dBASE III

Materials Required:

Self-Study:
Textbook
Laboratory:
Textbook
One (1) Floppy Disk
dBASE III Program Disk
dBASE III Data Disk from West Publishing Co.
IBM PC

Laboratory Handouts: None

Learning Activities (assignments):

Laboratory: Complete Lab 4

Understanding and Using dBASE III

1. Part 2: Unit 8
2. Part 2: Unit 9
3. Part 2: Unit 10
4. Application C
5. Application D

Steps:

1. Read assignments in textbook
2. Practice dBASE III commands in textbook
3. Answer Reviews Questions in textbook (if included)
4. Complete the Guided Activities in textbook (if included)
5. Complete Quiz 3
6. Complete Test 2

Evaluation:

Self-Study:
Quiz #3 (objective)
Test #2 (objective)
Laboratory:
Application C (performance)
Application D (performance)

Microcomputer Applications for Health Care Professionals

STUDENT'S GUIDE (LABORATORY)

Assignment #5 - Lab 5

Unit Title: Applications for Health Care Professionals

Assignment Is Associated With: Unit 7 - Applications for Health Care Professionals

Time Required: 7 hours

Objectives: Upon completion of this lab, the student will be able to:

1. Discuss "Is the Microcomputer for You?"
2. Describe selecting the microcomputer
3. Discuss introducing the system
4. Describe programs in action
5. Describe information centers
6. Describe field, records and files
7. Describe storing information
8. Describe sorting data
9. Describe report generation
10. Describe memory
11. Describe choosing a DBM program
12. Describe special purchase tracking
13. Describe project tracking
14. Describe facilities management
15. Describe an environmental quality assurance program
16. Describe financial management
17. Describe medical records applications

Materials Required:

Self-Study:
Textbook

Laboratory Handouts: None

Learning Activities (assignments):

Laboratory: Complete Lab 5

Microcomputers in Health Care Management

1. Chapter 3 and 6

Paper:

1. Use of microcomputers in the student's health care discipline
2. Data base application designed by student

Steps:

1. Read assignments in textbook
2. Test 2
3. Complete paper

Evaluation:

Self-Study:
Test #2 (objective)
Laboratory:
Application D (performance)
Paper

INSTRUCTOR'S COURSE SYLLABUS

Microcomputer Applications for Health Care Professionals

INSTRUCTOR'S COURSE SYLLABUS

COURSE TITLE: MICROCOMPUTER APPLICATIONS FOR HEALTH CARE PROFESSIONALS - LOTUS 1-2-3

COURSE NUMBER:

_____	____	0	45	1
Prefix	No.	Lecture Hrs.	Lab Hrs.	Credit Hrs.

CATALOG DESCRIPTION:

An introduction to microcomputer use in health care settings. Topics include computer system information, spreadsheets, and applications for the health care professional.

PREREQUISITE:

None

TEXTS:

Essentials of Data Processing, by Nancy A. Floyd, Times Mirror/Mosby College Publishing, 1987.

Microcomputers in Health Care Management, by William W. Christensen and Eugene I. Stearns, Aspen Publication, 1984.

Understanding and Using Lotus 1-2-3, by Steven C. Ross, West Publishing Company, 1986.

NOTE TO INSTRUCTOR: You may want to have several copies of the textbook, Microcomputers in Health Care Management, available to students on reserve in the library if the cost of textbooks is a concern.

ALTERNATE TEXTS:

Concepts and Issues in Health Care Computing, by H. Dominic Covvey, Nancy H. Craven, and Neil H. McAlister, C. V. Mosby Company, 1987.

Using IBM Microcomputers, by Keiko M. Pitter and Richard L. Pitter, Mitchell Publishing, Inc., 1986.

REFERENCES:

Computer Annual, by Robert H. Blissmer, John Wiley & Sons, 1986-1987.

Four Software Tools, by Tim Duffy, Wadsworth Publishing Company, 1987.

Power Pack for the IBM PC, by Dravillas/Stillwell/ Williams, Times Mirror/Mosby College Publishing, 1986.

Understanding and Using Microcomputers, by Steven M. Zimmerman and Leo M. Conrad, West Publishing Company, 1986.

Using Applications Software, by Donald H. Bell, Ashton-Tate Publishing Group, 1986.

EQUIPMENT AND MATERIALS REQUIRED:

HARDWARE: IBM PC with 2 disk drives and compatible printer per student

SOFTWARE: Lotus 1-2-3 software and manual per student

Lotus 1-2-3 Data Disk from West Publishing Co.

INSTRUCTIONAL PROCESS:

1. This is a self-paced course that will take approximately 45 hours to complete for 1 hour credit.

2. Reading and laboratory assignments can be found in the materials, Student's Guide (Laboratory), attached.

3. A paper describing the use of microcomputers in the student's health care discipline will be required. The paper will contain a section on the use of spreadsheets and a spreadsheet application designed by the student.

4. Tests and quizzes will be given.

5. Application program disks, data disks, and tests and quizzes are available from the check-out desk in the Learning Resource Center.

6. All laboratory assignments, tests and quizzes, and the paper must be completed by the last day of the course. Although this is a self-paced course, there is a class schedule attached to the Student's Course Syllabus. The student may use it as a suggested schedule to complete the course if so desired.

7. The student who has knowledge and experience in any of the course content may demonstrate proficiency and receive credit for it by successfully completing tests, quizzes, laboratory assignments, and/or the paper.

NOTE TO INSTRUCTOR:

The textbook, Essentials of Data Processing, by Nancy A. Floyd comes with complementary copies of an instructor's guide, a test bank and a student study guide. A computerized testing package, Microtest, is also complementary when twenty-five (25) or more copies of the textbook is ordered for students to purchase. Contact C. V. Mosby Company at 1-800-325-4177 for procedures to secure these items.

The textbook on Lotus 1-2-3 comes with complementary copies of an instructor's manual and test bank and the data disk listed in the software needs section. Contact West Publishing Co. at 1-800-328-9424 for procedures to secure these items.

EVALUATION OF STUDENTS:

Examinations: Two unit tests will be given.

Quizzes: Two quizzes will be given periodically. Each quiz will be similar to exam questions.

Paper: One paper will be required.

Laboratory Assignments: These will be found in the Student's Guide (Laboratory).

NOTE TO INSTRUCTOR:

Items for tests and quizzes on the Floyd and Ross textbooks are located in the materials available from the respective publishers.

Items for tests and quizzes on the textbook, Microcomputers in Health Care Management, by Christensen and Stearns are attached to the Instructor's Syllabus.

FINAL GRADE DETERMINATION:

Grades for the semester will be determined based on the accumulated points earned. To determine a tentative grade, divide the total points earned by the total possible points. The grading scale will be strictly 90, 80, 70, 60 percent of the possible points.

Approximately 40% of the total points will be from lab assignments, 20% from tests, 20% from quizzes, and 20% from the paper.

COMPETENCY STATEMENTS:

By the end of the course, the student will be able to:

1. Initialize a diskette.
2. Prepare a backup file.
3. Maintain a backup file.
4. Key data into an electronic spreadsheet.
5. Create an electronic spreadsheet.
6. Enter formulas into an electronic spreadsheet.
7. Retrieve an electronic spreadsheet file.
8. Copy an electronic spreadsheet file.
9. Edit and combine electronic spreadsheet files.
10. Create charts using computer graphics software.
11. Edit, save, and retrieve data using graphics software.
12. Print document using continuous-feed paper on dot matrix, letter quality, and/or laser printer.
13. Print document using single-sheet paper.
14. Output information according to sort criteria.
15. Send and receive messages via electronic mail system.
16. Merge electronic spreadsheet files.
17. Import data from external source for graphics presentation.
18. Log on to use network software.
19. Describe the various technologies used to create, store, retrieve, process, and distribute information.
20. Explain the basic concepts of electronic spreadsheets.
21. Explain the basic concepts of telecommunications.
22. Define desktop publishing.
23. Describe the components of computer hardware.
24. Describe the two basic types of software.

25. Explain the ways in which operating systems can be used.
26. Describe the different levels of programming languages.
27. Describe the role of computers in business and society.
28. Explain the use of a local area network.
29. Describe the factors to be considered in selecting a computer.
30. Describe the factors to be considered in selecting applications software.
31. Describe the role of computers in business and society (hospitals).

COURSE OUTLINE:

CONTENTS OF UNIT 1: Information on Computer Systems

1. The components of computer hardware
2. The two basic types of software
3. The ways in which operating systems can be used
4. The different levels of programming languages
5. The role of computers in business, medicine, allied health and society
6. The factors to be considered in selecting a microcomputer
7. The factors to be considered in selecting applications software
8. The basic concepts of telecommunications
9. The components of the information processing cycle

CONTENTS OF UNIT 2: Information on Computer Systems (Cont.)

1. The microcomputer revolution
2. The database and its evolution
3. The basic concepts of electronic spreadsheets
4. The basic comcepts of wordprocessing
5. The basic concepts of database management
6. The use of graphics
7. The use of networking
8. The current issues in telecommunications

CONTENTS OF UNIT 3: Spreadsheets - Lotus 1-2-3

1. Getting Started on Your Microcomputer
2. Fundamental Spreadsheet
3. Operations
4. The Lotus Enviornment
5. The Lotus Worksheet
6. Operators and Functions

CONTENTS OF UNIT 4: Spreadsheets - Lotus 1-2-3

1. Changing the Appearance of the Worksheet
2. Print Command

CONTENTS OF UNIT 5: Spreadsheets - Lotus 1-2-3

1. Calculation
2. Copy and Move Commands

CONTENTS OF UNIT 6: Spreadsheets - Lotus 1-2-3

1. Screen Graphics
2. Paper Graphics
3. Applications for Health Care Professionals

Test Items for Textbook:

Microcomputers in Health Care Management

CHAPTER 3:

1. Microcomputers are generally designed to be used:

   a. by one person at a time
   b. as part of a network
   c. in conjunction with a minicomputer
   d. as an adjunct to a mainframe computer

   Answer: A Reference: p. 38

2. The most important objective to keep in mind while considering the purchase of a microcomputer system is

   a. the cost
   b. what applications programs will be used
   c. its intended use
   d. the memory capacity

   Answer: C Reference: p. 38

3. Which is not a limitation of microcomputer programs?

   a. the external memory available
   b. the internal memory available
   c. the types of application programs available
   d. the actual algorithms in the program itself

   Answer: C Reference: p. 40

4. Health care staff members may feel _____ often associated with the introduction of new technology.

   a. relief
   b. anxiety
   c. excitement
   d. possessiveness

   Answer: B Reference: p. 42

CHAPTER 3 cont.

5. To encourage the health care staff to use the microcomputer constructively:

   a. develop a schedule so everyone works on the computer everyday
   b. assign one person at a time to work with an application program until he knows it well
   c. arrange demonstrations that show the effectiveness of the microcomputer by experts
   d. make assignments that allow staff members to interact with the computer in a useful and successful way

   Answer: D Reference: p. 43

CHAPTER 4:

1. Which is not a function of a spreadsheet program?

   a. project tracking
   b. mean, median of a given series
   c. mathematical operations
   d. column width

   Answer: A Reference: p. 54

2. The template is used to:

   a. create rows and columns
   b. provide a format for any account by plugging in appropriate information
   c. perform mathematical calculations
   d. produce a printed report

   Answer: B Reference: p. 60

3. An example of materiel management would be:

   a. a cost summary of expended supplies
   b. physical measurements
   c. the number of items used per patient per day
   d. employee grievances

   Answer: C Reference: p. 72

CHAPTER 4 cont.

4. Types of productivity measurement do not include:

   a. management productivity
   b. total factor productivity
   c. simple outcome indicators
   d. partial factor productivity

   Answer: A Reference: p. 79

5. Health care professionals could find uses for spreadsheets in determining personnel needs by:

   a. performing labor market analyses
   b. preparing for and carrying out labor contract negotiations
   c. projecting appropriate staff levels for a defined area
   d. A, B and C

   Answer: D References: pp. 92, 96 and 99

CHAPTER 7:

1. The number of dots of light that can be controlled by the microcomputer is the definition for:

   a. resolution
   b. pixels
   c. dot matrix
   d. chips

   Answer: C Reference: p. 211

2. Which is not a type of graph that could be used by health care professionals?

   a. line
   b. scatter
   c. plot
   d. bar

   Answer: C Reference: p. 213

3. The major advantage of using a graph over a table is that it:

   a. can provide a better picture of the information
   b. is easier to interpret
   c. is easier to read
   d. A and C

   Answer: A Reference: p. 215

CHAPTER 7 cont.

4. Comparing data, such as the delay between the time during which an expense is incurred and the time that it is shown on a financial statement, is best represented in a:

   a. pie chart
   b. double line graph
   c. bar graph
   d. scatter plot

   Answer: B Reference: p. 222

5. Microcomputer graphics provide an invaluable tool to the health care manager because of its:

   a. reasonable cost
   b. easy picture interpretation
   c. data manipulation capabilities
   d. A and C

   Answer: A Reference: p. 225

DATABASE MANAGEMENT APPLICATIONS

STUDENT COURSE SYLLABUS

Microcomputer Applications for Health Care Professionals

STUDENT'S COURSE SYLLABUS

COURSE TITLE: MICROCOMPUTER APPLICATIONS FOR HEALTH CARE PROFESSIONALS - dBASE III

COURSE NUMBER:

_____	____	0	45	1
Prefix	No.	Lecture Hrs.	Lab Hrs.	Credit Hrs.

CATALOG DESCRIPTION:

An introduction to microcomputer use in health care settings. Topics include computer system information, data base management, and applications for the health care professional.

PREREQUISITE:

None

TEXTS:

Essentials of Data Processing, by Nancy A. Floyd, Times Mirror/Mosby College Publishing, 1987.

Microcomputers in Health Care Management, by William W. Christensen and Eugene I. Stearns, Aspen Publication, 1984.

Understanding and Using dBase III, by Steven C. Ross, West Publishing Company, 1986.

INSTRUCTIONAL PROCESS:

1. This is a self-paced course that will take approximately 45 hours to complete for 1 hour credit.

2. Reading and laboratory assignments can be found in the materials, Student's Guide (Laboratory), attached.

3. A paper describing the use of microcomputers in the student's health care discipline will be required. The paper will contain a section on the use of data base management and a data base application designed by the student.

4. Tests and quizzes will be given.

5. Application program disks, data disks, and tests and quizzes are available from the check-out desk in the Learning Resource Center.

6. All laboratory assignments, tests and quizzes, and the paper must be completed by the last day of the course. Although this is a self-paced course, there is a class schedule attached to the Student's Course Syllabus. The student may use it as a suggested schedule to complete the course if so desired.

7. The student who has knowledge and experience in any of the course content may demonstrate proficiency and receive credit for it by successfully completing tests, quizzes, laboratory assignments, and/or the paper.

OBJECTIVES:

After completion of this course, the student will be able to:

1. Understand basic information concerning computer systems

2. Demonstrate proficiency in data base management

3. Understand applications of and data base management in health care

EVALUATION OF STUDENTS:

Examinations: Two unit tests will be given.

Quizzes: Three quizzes will be given periodically. Each quiz will be similar to exam questions.

Paper: One paper will be required.

Laboratory Assignments: These will be found in the Student's Guide (Laboratory).

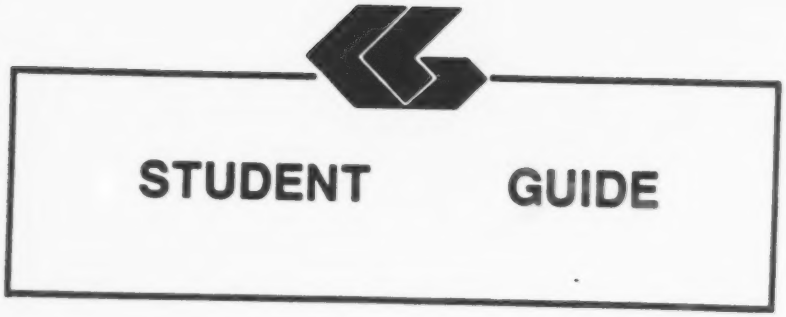
FINAL GRADE DETERMINATION:

Grades for the semester will be determined based on the accumulated points earned. To determine a tentative grade, divide the total points earned by the total possible points. The grading scale will be strictly 90, 80, 70, 60 percent of the possible points.

Approximately 40% of the total points will be from lab assignments, 20% from tests, 20% from quizzes, and 20% from the paper.

CLASS SCHEDULE:

Week No.	Description	Due	Assignment
	INTRODUCTION/OVERVIEW		Essentials of Data Processing
1	Information on Computer Systems	Quiz 1	Chapters 1, 2, 3, and 4
2	Information on Computer Systems (Cont.)	Test 1	Chapters 1, 2, 3, 4, 6, 8, 9, 10
	DATA BASE MANAGEMENT: dBASE III		Understanding and Using dBASE III
3	Getting Started on Your Microcomputer	Lab 1	Appendix A
	Fundamental Data Base Operations		Part 1: Page 1
	The Data Base Concept		Part 1: Unit 1
	The dBase Environment		Part 1: Unit 2
			Application A
4	Data File Creation	Quiz 2	Part 1: Unit 3
	Intermediate Data Base Operations	Lab 2 Appli. A	Part 2: Page 41
	Conditions/Expressions		Part 2: Unit 4
	Summary Statistics		Part 2: Unit 5
			Application A
			Application B
5	Data File Order and Search	Lab 3 Appli. B	Part 2: Unit 6
	Operating Parameters and Disk Files		Part 2: Unit 7
			Application B
			Application C
6	Data File Changes	Quiz 3	Part 2: Unit 8
	Report Generation	Lab 4	Part 2: Unit 9
	Label Generation	Appli. C	Part 2: Unit 10
			Application C
			Application D
7	Applications for Health Care Professionals	Test 2 Lab 5 Appli. D Paper	Microcomputers in Health Care Management
			Chapters 3 and 6
			Paper assignment


STUDENT GUIDE

Microcomputer Applications for Health Care Professionals

STUDENT'S GUIDE (READINGS)

Unit 1

Unit Title: Information on Computer Systems

Contents of Unit:

1. The components of computer hardware
2. The two basic types of software
3. The ways in which operating systems can be used
4. The different levels of programming languages
5. The historical development of computers
6. The role of computers in business, medicine, allied health and society
7. The factors to be considered in selecting a microcomputer
8. The factors to be considered in selecting applications software
9. The basic concepts of telecommunications
10. The components of the information processing cycle

Unit Objectives: Upon completion of this unit, tne student will be able to:

1. Define the term computer
2. Recount the evolution of computers
3. Discuss how computers affect our lives
4. Describe the characteristics of the various input and output devices
5. Explain the differences between sequential and random access and the advantages of each
6. Explain the purpose of secondary storage
7. List several devices that must be accessed sequentially and several that may be accessed randomly
8. Explain how data is stored on disk and on tape
9. Identify the components of the central processing unit
10. Describe what occurs during a machine cycle
11. Explain how main storage differs from secondary storage and the purpose of each
12. Differentiate between multiprogramming and multi-processing
13. Discribe the purpose of an operating system and compares several current ones
14. Explain what software is
15. Discuss custom programming and why it is necessary

16. Describe several popular types of applications software: electronic spreadsheets, word processing programs, and integrated software
17. Explain what is meant by high- and low-level languages
18. Discuss why so many languages exist and describes several of them
19. Explain the purpose of query languages
20. Describe what is meant by natural languages

Rationale: Students must understand and be able to describe basic information and concepts concerning computer systems in general.

Learning Activities: Essentials of Data Processing
Read Chapters 1, 2, 3, and 4

Unit Evaluation: Quiz #1 and Test #1

Terms (vocabulary):

computer	input device	output device
sequential access	random access	secondary storage
data	disk	tape
central processing unit (CPU)	machine cycle	main storage
programming	operating system	software
electronic spreadsheets	custom programming	query languages
high-level language	word processing	integrated software
	word processing programs	low-level language
	natural languages	applications software

Microcomputer Applications for Health Care Professionals

STUDENT'S GUIDE (READINGS)

Unit 2

Unit Title: Information on Computer Systems (Cont.)

Contents of Unit:

1. The microcomputer revolution
2. The database and its evolution
3. The basic concepts of electronic spreadsheets
4. The basic concepts of wordprocessing
5. The basic concepts of database management
6. The use of graphics
7. The use of networking
8. The current issues in telecommunications

Unit Objectives: Upon completion of this unit, the student will be able to:

1. Discuss the history of the microcomputer revolution
2. Describe the unique hardware characteristics of the microcomputer
3. Explain what a "supermicro" is
4. Discuss the various uses of microcomputers
5. Evaluate microcomputer hardware
6. Evaluate software
7. Know how to care for the microcomputer system
8. Define database
9. Discuss why database evolved
10. Describe the purpose of a query language
11. List the main functions of a database management system
12. Name the three most common types of database organization and describes their structure
13. Discuss the problems arising from the collection of large banks of data in a central location and problems with privacy, security, and ethics
14. Explain what a spreadsheet is and how it is used
15. Describe word processing and its advantages over both typing and using a memory typewriter
16. Discuss ways that database is used on a microcomputer
17. Define graphics and describes how they are used in a microcomputer environment
18. Discuss the features, such as windowing, that are used in these packages
19. Describe a telecommunications system and its hardware components
20. Explain what is meant by "handshaking"

21. Identify several types of communication links
22. Define a network
23. Describe several network configurations
24. Discuss the advantages and disadvantages of distributed data processing
25. Differentiate between distributed data processing and a distributed database
26. Discuss the current issues in telecommunications: privacy, security, and integrity
27. Discuss current trends in telecommunications

Rationale: Students must understand and be able to describe basic information and concepts concerning microcomputers, word processing, electronic spreadsheets, database management, and telecommunications.

Learning Activities: Essentials of Data Processing
Read Chapters 1, 2, 3, 4, 6, 8, 9, and 10

Unit Evaluation: Test #1

Terms (vocabulary):

microcomputer	hardware	supermicro
software	microcomputer system	database
query language	centralized data	database management system
data privacy	data security	wordprocessing
data ethics	spreadsheet	handshaking
graphics	windowing	network
telecommunications system	communication links	distributed data processing
telecommunications integrity	data processing	distributed database
telecommunications security	telecommunications privacy	
	telecommunications trends	

Microcomputer Applications for Health Care Professionals

STUDENT'S GUIDE (dBASE III)

Unit 3

Unit Title: dBASE III

Contents of Unit:

1. Getting Started on Your Microcomputer
2. Fundamental Data Base Operations
3. The Data Base Concept
4. The dBase Environment

Unit Objectives: Upon completion of this unit, the student will be able to:

1. Prepare a disk for use
2. Copy single files
3. Copy all files
4. Copy an entire disk
5. Define data base management terms
6. Describe important considerations before you begin to create a data base system
7. Describe a simple data base system on paper
8. Describe the use of the dBASE disks
9. Describe how dBASE uses the keyboard
10. Load the dBASE program

Rationale: Students must understand and be able to demonstrate proficiency in executing basic procedures and commands.

Learning Activities: Laboratory 1

Understanding and
Using dBASE III

Appendix A
Part 1: Page 1
Part 1: Unit 1
Part 1: Unit 2
Application A

Unit Evaluation: Application A
Quiz #2
Test #2

Terms (vocabulary):

disk operating system (DOS)
numeric keypad keys
startup procedures
default drive
copying files
erasing files
data base mamagement system (DBMS)
record
data dictionary
data base system design
startup procedure
function keys
toggle key functions
loading DOS
shutdown procedures
disk preparation
copying an entire disk
print screen function
dBASE III, version 1.2
table
fields
index
dBASE diskettes
dBASE II
multiple key combinations
caps lock key
the DOS prompt
DOS commands
disk directory
deleting files
pause display
file
byte
key
data base
dBASE keyboard

Microcomputer Applications for Health Care Professionals

STUDENT'S GUIDE (dBASE III)

Unit 4

Unit Title: dBASE III (Cont.)

Contents of Unit:

1. Data File Creation
2. Intermediate Data Base Operations
3. Conditions/Expressions
4. Summary Statistics

Unit Objectives: Upon completion of this unit, the student will be able to:

1. Describe the various types of fields
2. Describe how to structure a data file
3. Create a data file
4. Enter data into the file
5. Display the file contents
6. Change enteries in the file
7. Backup data files
8. Differentiate between logical conditions and computed expressions
9. Define "order of precedence"
10. Describe how each of the operators is used in expressions and conditions
11. Describe the various categories of functions
12. Write expressions and conditions using the various operators
13. Write expressions and conditions using functions
14. Utilize each of the summary statistics commands

Rationale: Students must understand and be able to demonstrate proficiency in executing basic procedures and commands.

Learning Activities: Laboratory 2

Understanding and
Using dBASE III

Part 1: Unit 3
Part 2: Page 41
Part 2: Unit 4
Part 2: Unit 5
Application A
Application B

Unit Evaluation: Application A
Application B
Quiz #2
Test #2

Terms (vocabulary):

commanding dBASE
field name
data entry
editing data
logical conditions vs. computed expressions
averages
quitting
field type
saving your work
backup
the calculator
creating a data file
constrained lists
functions
field width
viewing data in a data file
operators
counts
sums

Microcomputer Applications for Health Care Professionals

STUDENT'S GUIDE (dBASE III)

Unit 5

Unit Title: dBASE III (Cont.)

Contents of Unit:

1. Data File Order and Search
2. Operating Parameters and Disk Files

Unit Objectives: Upon completion of this unit, the student will be able to:

1. Describe the record pointer and current record
2. Differentiate between sorting and indexing
3. Describe what ASCII collating sequence means
4. Differentiate between finding locating
5. Sort a file
6. Indexe a file
7. Find a record
8. Locate records
9. Identify the purpose a file serves by the file extension
10. Describe the purpose of the various operating parameters and how to alter those parameters
11. Obtain a directory of data files on a disk
12. Obtain a directory of all files on a disk
13. Obtain a directory of all files of a certain type
14. Copy all or a portion of a data file to another data file
15. Copy all or a portion of a data file to a file suitable for importation into a spreadsheet or wordprocessing program
16. Display the current settings of function keys
17. Change the current settings of function keys

Rationale: Students must understand and be able to demonstrate proficiency in executing basic procedures and commands.

Learning Activities: Laboratory 3

Understanding and Using dBASE III

Part 2: Unit 6
Part 2: Unit 7
Application B
Application C

Unit Evaluation: Application B
Application C
Quiz #3
Test #2

Terms (vocabulary):

ordering the data in a file
parameters
displaying parameters
input from other applications software
sorting
searching through a file
output to other applications software
indexing
record pointer
operating parameters
disk files

Microcomputer Applications for Health Care Professionals

STUDENT'S GUIDE (dBASE III)

Unit 6

Unit Title: dBASE III (Cont.)

Contents of Uint:

1. Data File Changes
2. Report Generation
3. Label Generation

Unit Objectives: Upon completion of this unit, the student will be able to:

1. Differentiate among edit, change and replace commands
2. Describe the various stages of the record deletion process
3. Combine two data files
4. Change selected fields of selected records
5. Replace field contents on a selective basis
6. Delete, recall, and purge records
7. Modify the structure of a data file
8. Define the terminology of reports
9. Create and produces a report
10. Create labels using dBASE III

Rationale: Students must understand and be able to demonstrate proficiency in executing basic procedures and commands.

Learning Activities: Laboratory 4

Understanding and
Using dBASE III

Part 2: Unit 8
Part 2: Unit 9
Part 2: Unit 10
Application C
Application D

Unit Evaluation: Application C
Application D
Quiz #3
Test #2

Terms (vocabulary):

adding data	changing data	deleting records
temporary deletion	permanent deletion	modifying file structure
report	report format	report generation
field definition	producing reports	
creating label format	producing labels	

Microcomputer Applications for Health Care Professionals

STUDENT'S GUIDE (READINGS)

Unit 7

Unit Title: Applications for Health Care Professionals

Contents of Unit:

1. Applications for Health Care Professionals

Unit Objectives: Upon completion of this unit, the student will be able to:

Concerning the importance to health care:

1. Describe field, records and files
2. Describe storing information
3. Describe sorting data
4. Describe report generation
5. Describe memory
6. Describe choosing a DBM program
7. Describe special purchase tracking
8. Describe project tracking
9. Describe facilities management
10. Describe an environmental quality assurance program
11. Describe financial management
12. Describe medical records applications

Rationale: Students must understand and be able to describe the importance of data base management to health care professionals.

Learning Activities: Laboratory 5

Microcomputers in Health Care Management

Chapters 3 and 6

Paper assignment

Unit Evaluation: Test #2
Paper assignment

Terms (vocabulary):

field
storing information
memory
project tracking
financial management
records
sorting data
DBM program
facilities management
files
report generation
special purchase tracking
environmental quality assurance program

STUDENT LAB GUIDE

Microcomputer Applications for Health Care Professionals

STUDENT'S GUIDE (LABORATORY)

Assignment #1 - Lab 1

Unit Title: dBASE III

Assignment Is Associated With: Unit 3 - dBASE III

Time Required: 7 hours

Objectives: Upon completion of this lab, the student will be able to:

1. Prepare a disk for use
2. Copy single files
3. Copy all files
4. Copy an entire disk
5. Define data base management terms
6. Describe important considerations before you begin to create a data base system
7. Describe a simple data base system on paper
8. Describe the use of the dBASE disks
9. Describe how dBASE uses the keyboard
10. Load the dBASE program

Materials Required:

Self-Study:
Textbook
Laboratory:
Textbook
One (1) Floppy Disk
dBASE III Program Disk
dBASE III Data Disk from West Publishing Co.
IBM PC

Laboratory Handouts: None

Learning Activities (assignments):

Laboratory: Complete Lab 1

Understanding and Using dBASE III

1. Appendix A
2. Part 1: Page 1
3. Part 1: Unit 1
4. Part 1: Unit 2
5. Application A

Steps:

1. Read assignments in textbook
2. Practice dBASE III commands in textbook
3. Answer Reviews Questions in textbook (if included)
4. Complete the Guided Activities in textbook (if included)
5. Complete Quiz 2
6. Complete Test 2

Evaluation:

Self-Study:
Quiz #2
Test #2 (objective)
Laboratory:
Application A (performance)

Microcomputer Applications for Health Care Professionals

STUDENT'S GUIDE (LABORATORY)

Assignment #2 - Lab 2

Unit Title: dBASE III

Assignment Is Associated With: Unit 4 - dBASE III

Time Required: 7 hours

Objectives: Upon completion of this lab, the student will be able to:

1. Describe the various types of fields
2. Describe how to structure a data file
3. Create a data file
4. Enter data into the file
5. Display the file contents
6. Change enteries in the file
7. Backup data files
8. Differentiate between logical conditions and computed expressions
9. Define "order of precedence"
10. Describ how each of the operators is used in expressions and conditions
11. Describe the various categories of functions
12. Write expressions and conditions using the various operators
13. Write expressions and conditions using functions
14. Utilize each of the summary statistics commands

Materials Required:

Self-Study:
- Textbook

Laboratory:
- Textbook
- One (1) Floppy Disk
- dBASE III Program Disk
- dBASE III Data Disk from West Publishing Co.
- IBM PC

Laboratory Handouts: None

Learning Activities (assignments)

Laboratory: Complete Lab 2

Understanding and Using dBASE III

1. Part 1: Unit 3
2. Part 2: Page 41
3. Part 2: Unit 4
4. Part 2: Unit 5
5. Application A
6. Application B

Steps:

1. Read assignments in textbook
2. Practice dBASE III commands in textbook
3. Answer Reviews Questions in textbook (if included)
4. Complete the Guided Activities in textbook (if included)
5. Complete Quiz 2
6. Complete Test 2

Evaluation:

Self-Study:
Quiz #2
Test #2 (objective)
Laboratory:
Application A (performance)
Application B (performance)

Microcomputer Applications for Health Care Professionals

STUDENT'S GUIDE (LABORATORY)

Assignment #3 - Lab 3

Unit Title: dBASE III

Assignment Is Associated With: Unit 5 - dBASE III

Time Required: 7 hours

Objectives: Upon completion of this lab, the student will be able to:

1. Describe the record pointer and current record
2. Differentiate between sorting and indexing
3. Describe what ASCII collating sequence means
4. Differentiate between finding locating
5. Sort a file
6. Indexe a file
7. Find a record
8. Locate records
9. Identifie the purpose a file serves by the file extension
10. Describe the purpose of the various operating parameter and how to alter those parameters
11. Obtain a directory of data files on a disk
12. Obtain a directory of all files on a disk
13. Obtain a directory of all files of a certain type
14. Copy all or a portion of a data file to another data file
15. Copy all or a portion of a data file to a file suitable for importation into a spreadsheet or wordprocessing program
16. Display the current settings of function keys
17. Change the current settings of function keys

Materials Required:

Self-Study:
Textbook
Laboratory:
Textbook
One (1) Floppy Disk
dBASE III Program Disk
dBASE III Data Disk from West Publishing Co.
IBM PC

Laboratory Handouts: None

Learning Activities (assignments):

Laboratory: Complete Lab 3

Understanding and Using dBASE III

1. Part 2: Unit 6
2. Part 2: Unit 7
3. Application B
4. Application C

Steps:

1. Read assignments in textbook
2. Practice dBASE III commands in textbook
3. Answer Reviews Questions in textbook (if included)
4. Complete the Guided Activities in textbook (if included)
5. Complete Quiz 3
6. Complete Test 2

Evaluation:

Self-Study:
- Quiz #3 (objective)
- Test #2 (objective)

Laboratory:
- Application B (performance)
- Application C (performance)

Microcomputer Applications for Health Care Professionals

STUDENT'S GUIDE (LABORATORY)

Assignment #4 - Lab 4

Unit Title: dBASE III

Assignment Is Associated With: Unit 6 - dBASE III

Time Required: 7 hours

Objectives: Upon completion of this lab, the student will be able to:

1. Differentiate among edit, change and replace commands
2. Describe the various stages of the record deletion process
3. Combine two data files
4. Change selected fields of selected records
5. Replace field contents on a selective basis
6. Delete, recall, and purge records
7. Modify the structure of a data file
8. Define the terminology of reports
9. Create and produces a report
10. Create labels using dBASE III

Materials Required:

Self-Study:
Textbook
Laboratory:
Textbook
One (1) Floppy Disk
dBASE III Program Disk
dBASE III Data Disk from West Publishing Co.
IBM PC

Laboratory Handouts: None

Learning Activities (assignments):

Laboratory: Complete Lab 4

Understanding and Using dBASE III

1. Part 2: Unit 8
2. Part 2: Unit 9
3. Part 2: Unit 10
4. Application C
5. Application D

Steps:

1. Read assignments in textbook
2. Practice dBASE III commands in textbook
3. Answer Reviews Questions in textbook (if included)
4. Complete the Guided Activities in textbook (if included)
5. Complete Quiz 3
6. Complete Test 2

Evaluation:

Self-Study:
Quiz #3 (objective)
Test #2 (objective)
Laboratory:
Application C (performance)
Application D (performance)

Microcomputer Applications for Health Care Professionals

STUDENT'S GUIDE (LABORATORY)

Assignment #5 - Lab 5

Unit Title: Applications for Health Care Professionals

Assignment Is Associated With: Unit 7 - Applications for Health Care Professionals

Time Required: 7 hours

Objectives: Upon completion of this lab, the student will be able to:

1. Discuss "Is the Microcomputer for You?"
2. Describe selecting the microcomputer
3. Discuss introducing the system
4. Describe programs in action
5. Describe information centers
6. Describe field, records and files
7. Describe storing information
8. Describe sorting data
9. Describe report generation
10. Describe memory
11. Describe choosing a DBM program
12. Describe special purchase tracking
13. Describe project tracking
14. Describe facilities management
15. Describe an environmental quality assurance program
16. Describe financial management
17. Describe medical records applications

Materials Required:

Self-Study:
Textbook

Laboratory Handouts: None

Learning Activities (assignments):

Laboratory: Complete Lab 5

Microcomputers in Health Care Management

1. Chapter 3 and 6

Paper:

1. Use of microcomputers in the student's health care discipline
2. Data base application designed by student

Steps:

1. Read assignments in textbook
2. Test 2
3. Complete paper

Evaluation:

Self-Study:
Test #2 (objective)
Laboratory:
Application D (performance)
Paper

INSTRUCTOR'S COURSE SYLLABUS

INSTRUCTOR'S COURSE SYLLABUS

COURSE TITLE: MICROCOMPUTER APPLICATIONS FOR HEALTH CARE PROFESSIONALS - dBASE III

COURSE NUMBER:

Prefix	No.	0 Lecture Hrs.	45 Lab Hrs.	1 Credit Hrs.

CATALOG DESCRIPTION:

An introduction to microcomputer use in health care settings. Topics include computer system information, data base management, and applications for the for the health professional

PREREQUISITE:

None

TEXTS:

Essentials of Data Processing, by Nancy A. Floyd, Times Mirror/Mosby College Publishing, 1987.

Microcomputers in Health Care Management, by William W. Christensen and Eugene I. Stearns, Aspen Publication, 1984.

Understanding and Using dBase III, by Steven C. Ross, West Publishing Company, 1986.

NOTE TO INSTRUCTOR: You may want to have several copies of the textbook, Microcomputers in Health Care Management, available to students on reserve in the library if the cost of textbooks is a concern.

ALTERNATE TEXTS:

Concepts and Issues in Health Care Computing, by H. Dominic Covvey, Nancy H. Craven, and Neil H. McAlister, C. V. Mosby Company, 1987.

Using IBM Microcomputers, by Keiko M. Pitter and Richard L. Pitter, Mitchell Publishing, Inc., 1986.

REFERENCES:

Computer Annual, by Robert H. Blissmer, John Wiley & Sons, 1986-1987.

Four Software Tools, by Tim Duffy, Wadsworth Publishing Company, 1987.

Power Pack for the IBM PC, by Dravillas/Stillwell/ Williams, Times Mirror/Mosby College Publishing, 1986.

Understanding and Using Microcomputers, by Steven M. Zimmerman and Leo M. Conrad, West Publishing Company, 1986.

Using Applications Software, by Donald H. Bell, Ashton-Tate Publishing Group, 1986.

EQUIPMENT AND MATERIALS REQUIRED:

HARDWARE: IBM PC with 2 disk drives and compatible printer per student

SOFTWARE: dBASE III software and manual per student

dBASE III Data Disk from West Publishing Co.

INSTRUCTIONAL PROCESS:

1. This is a self-paced course that will take approximately 45 hours to complete for 1 hour credit.

2. Reading and laboratory assignments can be found in the materials, Student's Guide (Laboratory), attached.

3. A paper describing the use of microcomputers in the student's health care discipline will be required. The paper will contain a section on the use of data base manaement and a data base application designed by the student.

4. Tests and quizzes will be given.

5. Application program disks, data disks, and tests and quizzes are available from the check-out desk in the Learning Resource Center.

6. All laboratory assignments, tests and quizzes, and the paper must be completed by the last day of the course. Although this is a self-paced course, there is a class schedule attached to the Student's Course Syllabus. The student may use it as a suggested schedule to complete the course if so desired.

7. The student who has knowledge and experience in any of the course content may demonstrate proficiency and receive credit for it by successfully completing tests, quizzes, laboratory assignments, and/or the paper.

NOTE TO INSTRUCTOR:

The textbook, Essentials of Data Processing, by Nancy A. Floyd comes with complementary copies of an instructor's guide, a test bank and a student study guide. A computerized testing package, Microtest, is also complementary when twenty-five (25) or more copies of the textbook is ordered for students to purchase. Contact C. V. Mosby Company at 1-800-325-4177 for procedures to secure these items.

The textbook on dBASE III comes with complementary copies of an instructor's manual and test bank and the data disk listed in the software needs section. Contact West Publishing Co. at 1-800-328-9424 for procedures to secure these items.

EVALUATION OF STUDENTS:

Examinations: Two unit tests will be given.

Quizzes: Three quizzes will be given periodically. Each quiz will be similar to exam questions.

Paper: One paper will be required.

Laboratory Assignments: These will be found in the Student's Guide (Laboratory).

NOTE TO INSTRUCTOR:

Items for tests and quizzes on the Floyd and Ross textbooks are located in the materials available from the respective publishers.

Items for tests and quizzes on the textbook, Microcomputers in Health Care Management, by Christensen and Stearns are attached to the Instructor's Syllabus.

FINAL GRADE DETERMINATION:

Grades for the semester will be determined based on the accumulated points earned. To determine a tentative grade, divide the total points earned by the total possible points. The grading scale will be strictly 90, 80, 70, 60 percent of the possible points.

Approximately 40% of the total points will be from lab assignments, 20% from tests, 20% from quizzes, and 20% from the paper.

COMPETENCY STATEMENTS:

By the end of the course, the student will be able to:

1. Initialize a diskette.
2. Prepare a backup file.
3. Maintain a backup file.
4. Create an electronic database file.
5. Key data into an electronic database file.
6. Retrieve database files.
7. Copy database files.
8. Edit database files.
9. Print document using continuous-feed paper on dot matrix, letter quality, and/or laser printer.
10. Print document using single-sheet paper.
11. Output information according to sort criteria.
12. Send and receive messages via electronic mail system.
13. Import data from external source for graphics presentation.
14. Log on to use network software.
15. Describe the components of the information processing cycle.
16. Describe the various technologies used to create, store, retrieve, process, and distribute information.
17. Explain the basic concepts of database management.
18. Explain the basic concepts of telecommunications.
19. Define desktop publishing.
20. Describe the components of computer hardware.
21. Describe the two basic types of software.
22. Explain the ways in which operating systems can be used.

23. Describe the different levels of programming languages.
24. Describe the role of computers in business and society.
25. Explain the use of a local area network.
26. Describe the factors to be considered in selecting a computer.
27. Describe the factors to be considered in selecting applications software.
28. Describe the role of computers in business and society (hospitals).

COURSE OUTLINE:

CONTENTS OF UNIT 1: Information on Computer Systems

1. The components of computer hardware
2. The two basic types of software
3. The ways in which operating systems can be used
4. The different levels of programming languages
5. The role of computers in business, medicine, allied health and society
6. The factors to be considered in selecting a microcomputer
7. The factors to be considered in selecting applications software
8. The basic concepts of telecommunications
9. The components of the information processing cycle

CONTENTS OF UNIT 2: Information on Computer Systems (Cont.)

1. The microcomputer revolution
2. The database and its evolution
3. The basic concepts of electronic spreadsheets
4. The basic comcepts of wordprocessing
5. The basic concepts of database management
6. The use of graphics
7. The use of networking
8. The current issues in telecommunications

CONTENTS OF UNIT 3: Data Base Management - dBASE III

1. Getting Started on Your Microcomputer
2. Fundamental Data Base Operations
3. The Data Base Concept
4. The dBase Environment

CONTENTS OF UNIT 4: Data Base Management - dBASE III

1. Data File Creation
2. Intermediate Data Base Operations
3. Conditions/Expressions
4. Summary Statistics

CONTENTS OF UNIT 5: Data Base Management - dBASE III

1. Data File Order and Search
2. Operating Parameters and Disk Files

CONTENTS OF UNIT 6: Data Base Management - dBASE III

1. Data File Changes
2. Report Generation
3. Label Generation

CONTENTS OF UNIT 7: Data Base Management - dBASE III

1. Applications for Health Care Professionals

Test Items for Textbook:

Microcomputers in Health Care Management

CHAPTER 3:

1. Microcomputers are generally designed to be used:

   a. by one person at a time
   b. as part of a network
   c. in conjunction with a minicomputer
   d. as an adjunct to a mainframe computer

   Answer: A Reference: p. 38

2. The most important objective to keep in mind while considering the purchase of a microcomputer system is

   a. the cost
   b. what applications programs will be used
   c. its intended use
   d. the memory capacity

   Answer: C Reference: p. 38

3. Which is not a limitation of microcomputer programs?

   a. the external memory available
   b. the internal memory available
   c. the types of application programs available
   d. the actual algorithms in the program itself

   Answer: C Reference: p. 40

4. Health care staff members may feel _____ often associated with the introduction of new technology.

   a. relief
   b. anxiety
   c. excitement
   d. possessiveness

   Answer: B Reference: p. 42

CHAPTER 3 cont.

5. To encourage the health care staff to use the microcomputer constructively:

   a. develop a schedule so everyone works on the computer everyday
   b. assign one person at a time to work with an application program until he knows it well
   c. arrange demonstrations that show the effectiveness of the microcomputer by experts
   d. make assignments that allow staff members to interact with the computer in a useful and successful way

   Answer: D Reference: p. 43

CHAPTER 6:

1. Which is the correct sequential progression?

   a. fields - records - files
   b. letters - data - records
   c. files - fields - documents
   d. characters - strings - reports

   Answer: A Reference: p. 157

2. All data fields butted directly up against each other describes a:

   a. random access file
   b. document file
   c. sequential file
   d. non-document file

   Answer: C Reference: p. 158

3. Data transfer rate is fastest when using a:

   a. floppy disk
   b. hard disk
   c. magnetic tape
   d. bubble sort

   Answer: B Reference: p. 161

CHAPTER 6 cont.

4. When very large amounts of data are to be stored, your best choice would be to use a:

   a. floppy disk
   b. hard disk
   c. magnetic tape
   d. bubble sort

   Answer: B Reference: p. 162

5. A data base management program would not be used by health care professionals for:

   a. special purchase tracking
   b. project tracking
   c. facilities management
   d. transcendental functions

   Answer: D References: pp. 163, 165 and 170